# U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION REGION 8 

## PREPARED BY

 STATE OF MONTANA DEPARTMENT OF HIGHWAYS
## ADMINISTRATIVE ACTION

FINAL
ENVIRONMENTAL STATEMENT
for
PROJECT F-100 (9)
COLUMBIA FALLS-EAST AND WEST


SUBMITTED PURSUANT TO 42 U.S.C. 4332 (2) (C), 23 U.S.C. 128 (a) AND 49 U.S.C. 1653 (f)
H. J. ANDERSON, DIRECTOR OF HIGHWAYS


Jack R. Beckert, Administrator Engineering Division


APPROVED AND ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION

Federal Highway Administration Regional Administrator

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## SUMMARY

## I. TYPE OF ACTION

Federal Highway Administration Administrative Action Environmental Statement
( ) Draft
(X) Final
(X) Section 4(f) Statement attached
II. PERSONS TO BE CONTACTED FOR ADDITIONAL INFORMATION

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Project F-100 (9), Columbia Falls-East and West, is located in Flathead County in northwestern Montana. It will involve the reconstruction of a $4.7 \pm$ mile section of Federal Aid Primary Route No. 38 , better known as Montana 40, which runs generally east and west between U.S. 93 and U.S. 2.

The project begins approximately two and one-quarter miles west of Columbia Falls at the end of the Columbia Falls-West project which was just recently completed. From here the project proceeds easterly, generally following Montana 40 through Columbia Falls and across the Flathead River until it ties into U.S. 2 in Columbia Falls Heights.

Several different typical sections, varying from 64 feet wide to 88 feet wide, will be used throughout the project. Sidewalks will be provided on both sides of the highway within the city limits and on the south side only for a short distance east and west of town.

It should be noted that the bridge across the Flathead River is presently under contract and should be completed in 1977. The bridge is being built to provide an 88-foot wide section with an eight-foot wide sidewalk on the south side.

The alignment of the project will essentially follow the existing highway, with some minor projections being made to the right or left to miss as many improvements as possible. The vertical alignment will not vary appreciably from the existing roadway since it will be necessary to match the approaching streets and existing improvements.

A new storm drain will be utilized in conjunction with the curb and gutter. Lights will be provided within the city limits. New
right-of-way will be required throughout the length of the project. An at-grade crossing of the Burlington Northern tracks will be provided near the west city limits.
IV.

ENVIRONMENTAL IMPACTS
The major overriding impact of this project will be beneficial as it will provide a new, improved, safe and efficient highway facility to serve the traveling public.

New right-of-way will be required and several homes and businesses will require relocation. Approximately 26 acres of new right-of-way will will be needed. Energy resources will be expended to construct the project. Some clearing and covering of existing vegetation and resultant loss of wildlife habitat will occur. Noise levels will increase due to the increased traffic on the highway. Water quality will be affected for a short time due to construction at the Flathead River and Trumbull Creek. Three-hundredths of an acre of land will be needed for right-of-way from Pinewood Park.

Increased pressure for commercial strip development may occur as a result of the improved frontage and access. Access to the area lying south of Montana 40 in the Nucleus Avenue area will be more restricted than it is at present.

## ALTERNATIVES

From the beginning of the project to a point just west of the Burlington Northern tracks, the proposed alignment generally follows the present highway and no alternates were considered. From this point just west of the Burlington Northern tracks to the end of the project, studies were made on five different alternates: Four-Lane Alternate "A",

Four-Lane Alternate "B", Couplet Alternate "A", Couplet Alternate "B", and the Bypass Alternate.

Four-Lane Alternate "A" and Four-Lane Alternate "B" are essentially the same except between First Avenue West and the Flathead River where the alignments differ.

Couplet Alternate "A" and Couplet Alternate "B" would separate the traffic with the two eastbound lanes using 11 th Street and the two westbound lanes using 9th Street. These two alternates are essentially the same except for a difference in alignment between First Avenue West and the Flathead River.

The Bypass Alternate would start just west of the Burlington Northern tracks and curve immediately to the southeast, passing on the south side of Columbia Falls. Only two lanes would have been provided for this alternate.

After due consideration and study, Four-Lane Alternate "B" was selected as the recommended alternate; however, in the vicinity of the Flathead River it was determined that it would be less costly to cross south of the existing structure instead of north of it and this change was made in the alignment of Four-Lane Alternate "B".

Three alternates were considered regarding the method of crossing the Burlington Northern tracks on the west edge of Columbia Falls. One alternate would cross the tracks at-grade, the second would separate the highway over the tracks, and the third would separate the highway under the tracks. The at-grade crossing was selected since neither a separation or overpass was warranted.

Several of the alternates already discussed would have avoided the necessity of taking any land from the Pinewood Park in Columbia

Falls. However, the recommended alternate would involve taking a 10-foot strip of the park, plus a 25-foot - 40-foot construction permit. The possibility of taking this 10 -foot strip from the north side of the highway away from the park was considered, but was found to be not economically feasible.

The "Do-Nothing" Alternate was given some consideration, but this would not fulfill the basic responsibility of providing safer and more efficient transportation and, therefore, this alternate was eliminated.

Also, several years after the selected alterante was approved, it was determined that it would be necessary to restudy the portion of the project between Nucleus Avenue and the Flathead. The reason for the restudy was basically due to public opinion regarding the matter. The lines that were restudied were essentially the same as Four-Lane Alternate "A" and Four-Lane Alternate "B" except that the new studies were based on a four-lane roadway instead of a two lane. These studies did not result in any change in alignment; however, it was decided that a four-lane roadway would be provided from Nucleus Avenue to the end of the project.
VI. FEDERAL, STATE, LOCAL AGENICES, AND OTHER ORGANIZATIONS FROM WHICH
COMMENTS WERE REQUESTED:
*Indicates those agencies from which comments were received.
*1. U.S. Department of the Interior
Assistant Secretary - Program Policy
Attention: Director, Environmental Project Review
Washington, D.C. 20240 ( 14 copies)
2. Department of Natural Resources and Conservation
Office of the Director
32 South Ewing
Helena, Montana 59601
3. Environmental Quality Council
Office of the Director
Box 215, Capitol Post Office
Helena, Montana 59601
4. Department of Community Affairs
Department of Economic Development
1400 11th Avenue
Helena, Montana 59601
5. Department of Community Affairs
Department of Planning
1424 9th Avenue
Helena, Montana 59601
*6. Environmental Protection Agency
Room 916, Lincoln Tower
1860 Lincoln Street
Denver, Colorado 50203 (5 copies)
*7. U.S. Department of Agriculture
U.S. Forest Service, Region No. 1
Regional Director
Federal Office Building
Missoula, Montana 59801
*8. Department of the Army
Seattle District Corps of Engineers
4735 East Marginal Way
Seattle, Washington 98104
*9. U.S. Department of Transportation
United States Coast Guard
Commander (OAN)
Thirteenth Coast Guard District
915 Second Avenue, Federal Building
Seattle, Washington 98122
*10. Department of Fish and Game Office of the Director 1420 East 6th Avenue Helena, Montana 59601
11. Board of County Commissioners Flathead County Courthouse Kalispell, Montana 59901
*12. U.S. Department of Agriculture Soil Conservation Service 685 Sunset Boulevard Kalispell, Montana 59901
13. United States Postmaster 530 First Avenue West Columbia Falls, Montana 59912
*14. Department of Health, Education and Welfare 9017 Federal Office Building 19th and Stout Streets Denver, Colorado 80202
15. University of Montana

Student Environmental Research Center
Room 212, Venture Center
Missoula, Montana 59801
*16. Mayor of Columbia Falls
City of Columbia Falls
Columbia Falls, Montana 59912
17. School District No. 6, Box 1257 Columbia Falls, Montana 59912
*18. Department of Community Affairs Aeronautics Division P.0. Box 1698 Helena, Montana 59601
*19. U.S. Department of Agriculture Dr. T.C. Byerly Office of the Secretary of Agriculture Washington, D.C. 98109

## VII. DATE DRAFT STATEMENT MADE AVAILABLE TO C.E.Q.

December 5, 1972

## I. PURPOSE OF THE PROJECT

Project F 100 (9), Columbia Falls - East and West, involves the reconstruction of a $4.7 \pm$ mile section of Montana Highway No. 40 in Flathead County.

The existing highway was constructed in 1937 and 1939, with additional surfacing being added in 1953 and 1955. The present roadway width is 28 feet except for an 0.7 mile urban section in Columbia Falls, which is 34 feet. The surfacing width varies from 22 to 24 feet. The 1970 sufficiency rating covering the majority of this section of primary highway is as follows:

1. Foundation - maximum of 10 - rated at 0
2. Surface - maximum of 30 - rated at 10
3. Drainage - maximum of 10 - rated at 8
4. Safety - maximum of 20 - rated at 0
5. Capacity - maximum of 30 - rate at 20

The above ratings are very $10 w$ and indicate that the existing highway is badly in need of reconstruction. Also, the existing three-span steel truss bridge over the Flathead River is only 22 feet wide with 15 feet of vertical clearance. Therefore, the purpose of this project is to provide a safer and more efficient highway that will provide better service to the rural and urban areas that the project traverses. Also, this project will provide a much better highway for tourists traveling into and out of nearby Glacier National Park.
II. PROJECT HISTORY AND CURRENT STATUS

The preliminary engineering program for this project was approved in January 1966. From 1966 to 1970, preliminary studies were made and
five different alternate alignments were selected for further consideration. Each of these alternates was studied quite thoroughly and they were presented to the public at a corridor public hearing held in Columbia Falls on January 7, 1970. Based on comments received at the hearing, letters received, and verbal discussions which in general favored following the present highway, the Montana Highway Commission in regular session in February 1970 approved one of the alternates as the recommended alternate. Subsequently, the Route Location Study Report was completed to cover all five alternates, with the commission approved line noted as the proposed location. This report was submitted to the Federal Highway Administration in May 1970 and approval of the proposed alternate was granted in June 1970.

In February 1970, at the time the commission selected the recommended alternate, they also decided to split the project into two separate sections. This was done because it was felt that there would not be sufficient funding available to let the entire 4.7 miles in one contract. Therefore, as indicated by the commission, we proceeded on that basis for about four years. The first section would have extended from the beginning of the project easterly for about 3.6 miles and ended just west of the Flathead River. The other section would have covered the last $0.9 \pm$ mile and would have included the Flathead River Bridge. A location survey was made for the entire 4.7 miles, was furnished to the designer in August 1971, and design plans were begun on the basis of designing the entire 4.7 mile project and then letting two separate contracts.

In September, 1971, after preliminary design was started, it was discovered that we would be involved with a small piece of the Pinewood

Park. Since it was evident that this constituted a $4(f)$ involvement, information gathering for a $4(f)$ Statement was immediately started.

In 1974 it was determined that Bridge Replacement Funds could be used to build the bridge over the Flathead River if it was let to contract by April 1, 1975. Therefore, a program was immediately undertaken to try and let the bridge to contract by this deadline. A Negative Declaration covering the environmental effects of the bridge and approaches was prepared and submitted to the Federal Highway Administration on July 2, 1974 and was approved on July 30, 1974. Location and design approval was received on August 12, 1974 and the project was let to contract on March 31, 1975. Construction is presently underway and completion is expected sometime in 1977.

Also, about this same time it became apparent that one of the alternates that was previously covered in the location studies involving the section of the project between Nucleus Avenue and the Flathead River was going to require further study as the local planning board was interested in it, mainly because it provided a better intersection with Nucleus Avenue. Two informational meetings were held to discuss the alternate line and it was decided that it should be presented to the public at the next public hearing.

A location-design public hearing was then held on November 5, 1975 and included a discussion of the alternate alignments between Nucleus Avenue and the Flathead River. On the basis of testimony received at the hearing, letters received, etc., it was determined the PTW (present traveled way) alignment, the same line for which location approval was received in 1970, was still the best line and design would proceed
accordingly.
With the bridge under contract, it was apparent that it was no longer necessary to aplit the project as was previously intended and we are now proceeding with the intention of letting the entire project, excluding the bridge, to contract in March 1978.
III. DESCRIPTION OF THE PROJECT AND SURROUNDING AREA

This project is located in northwestern Montana in the central part of Flathead County. It involves the reconstruction of a $4.7 \pm$ mile section of Federal Aid Primary Route 38, better known as Montana Highway No. 40, which runs east from U.S. Highway No. 93 on through Columbia Falls to U.S. Highway No. 2. The project lies in the northern part of the fertile Flathead Valley with its rich, irrigated farmland.

A short distance away are rugged, forested, mountainous areas that offer spectacular hunting, fishing, and general recreation. A few miles to the east is nationally famous Glacier National Park and to the southeast is Hungry Horse Dam and Reservoir. The project crosses the Flathead River just east of Columbia Falls, Montana.

Beyond Hungry Horse Reservoir is the Bob Marshall Wilderness Area, 950,000 acres that can be entered only by foot or horseback. To the south lies Flathead Lake, a popular summer home area, with public fishing, swimming, and boating facilities available.

The Flathead National Forest encompasses much of the surrounding area and provides an abundance of public land. There are numerous developed and undeveloped camping grounds with a large number of public facilities being available in Glacier National Park. Most of the nearby lakes are surrounded with trails and roads that provide people with a variety of
locations for overnight camping. There are also several commercial campgrounds and trailer parks in the area.

A map showing the relationship of this project to Flathead Lake, Hungry Horse Reservoir, Glacier National Park, etc. is included in the Exhibit Section of this statement.

The project itself begins approximately 0.38 mile west of the Montana 40 - Federal Aid Secondary 206 (locally known as LaSalle Road) Junction. From there it proceeds easterly, generally following existing Montana No. 40 through the town of Columbia Falls and thence across the Flathead River where it ends at the Montana 40 - U.S. 2 Junction near Columbia Heights. The beginning of the project ties in with the Columbia Falls-West project, which was completed in 1975. The difference in length between the existing highway and the new highway is negligible as the alignment of the new highway for the majority of the project follows existing Montana No. 40.

In an effort to minimize the right-of-way take and to better fit the built-up areas adjacent to the roadway, several different typical sections will be used throughout the project. The first 1000 ' $\pm$ of the project will consist of a transition from the 44-foot roadway on the Columbia Falls-West project to an 88-foot wide, four-lane section on this project. This 88-foot wide section, consisting of four 12-foot driving lanes, 10-foot shoulders, and a 20-foot painted median will be used for the next $1.1 \pm$ miles, at which point the roadway will transition down to a 64-foot wide curb and gutter section. This section, which will provide four 11-foot driving lanes, nine-foot shoulders, a two-foot painted median, and an eight-foot sidewalk on the south side, will be utilized for the next
$1.0 \pm$ miles to the Columbia Falls city limits. From here ahead for the next $0.8 \pm$ mile the roadway will be the same; however, eight-foot sidewalks will be provided on both sides of the roadway on through town to the east city limits, which is just past Nucleus Avenue. The project will then transition back to an 88-foot curb and gutter section, with an eight-foot sidewalk on the south side which will be used for the next $0.6 \pm$ mile to the east end of the Flathead River Bridge. From the east end of the bridge to the end of the project, about 0.9 mile , the same 88 -foot wide rural section that was used at the beginning of the project will again be utilized.

It should be noted that the new bridge across the Flathead River is presently under construction and should be completed in 1977. The 486-foot long bridge is being built to provide an 88 -foot wide section with an eight-foot wide sidewalk on the south side. Four prestressed concrete beam spans are being provided, with three piers in the river.

As stated earlier, the alignment of the project will essentially follow the existing highway; however, projections will be made either to the right or left to miss as many improvements as possible. For the first 2.0 miles of the project, the new centerline will almost identically match the existing centerline. Near the Burlington Northern railroad crossing or city limits, a five-foot projection to the right will be made and carried through to the Nucleus Avenue intersection area. This projection will be made so that the existing right-of-way on the north can be essentially maintained and all new right-of-way taken on the south. Past Nucelus Avenue the line will be projected first to the left of the existing centerline and then back to the right. At the river crossing, the projection will
be 22 feet right. This 22-foot projection was made so that half of the new bridge could be built while maintaining traffic on the old bridge and then traffic could be switched to the completed half of the new bridge, the existing bridge could be removed, and the new bridge completed. Between the bridge and U.S. 2, the new centerline will remain to the right of the existing centerline.

The vertical alignment of the project will not vary appreciably from the existing roadway since it will be necessary to match the approaching streets and existing improvements. Throughout the majority of the project the grades will be quite flat and not exceed one percent; however, there will be three areas where the grades will range between three and five percent. One of these will be about one mile from the beginning of the project, another just east of Nucleus Avenue, and the last in the vicinity of the U.S. 2 intersection.

A storm drain system will be provided throughout the project wherever the curb and gutter section is utilized. Outfalls will be to the Flathead River and Trumbull Creek.

Lights will be provided within the city limits. Existing signals will be perpetuated where warranted and the need for additional ones is being studied. One will undoubtedly be provided at the Montana 40 - Nucleus Avenue intersection.

Special intersection designs will be provided at the following locations:

1) FAS 206 - Montana 40 intersection
2) Nucleus Avenue - " " "
3) U.S. 2 " " "

Channelization and .left-turn bays will be provided.

An at-grade crossing with flashing signals will be provided at the Burlington Northern branch line track crossing on the west edge of town. The traffic count throughout this project varies considerably due in part to the large amount of traffic turning off Montana 40 and onto Nucleus Avenue and vice versa. Montana 40 is the only east-west highway in the area that connects U.S. 2 and U.S. 93 and, therefore, people coming from the east or west and wanting to reach the Columbia Falls business district, which is located on Nucleus Avenue, will generally use Montana 40 and then turn at the Nucleus Avenue Intersection. Also, the intersection is the lower terminus of Federal Aid Secondary No. 486, which is the approach to the west side of Glacier National Park and the main access to the Anaconda Aluminum Plant. Another factor causing this variation in traffic count is the fact that the project traverses both a rural and an urban area. The projected average daily traffic for the design year of 1996 ranges from 14,540 vehicles per day in the urban area to 2,963 vehicles per day in the rural area. The overall average daily traffic for the entire project for 1996 is 7,660 vehicles per day.

The existing right-of-way along Montana 40 outside of Columbia Falls in the vicinity of this project varies from 80 feet to 100 feet, with an average of approximately 90 feet. The existing strip of right-of-way through Columbia Falls is 70 feet wide. The new right-of-way from the beginning of the project to the start of the urban typical section will be about 204 feet wide. This will provide 80 feet from the centerline of each roadway with 44 feet between centerlines. The right-of-way for the urban section through Columbia Falls will be a minimum of 80 feet wide. From the end of the urban section to the end of the project, the right-of-way
will be about 160 feet, which will provide 80 feet on each side of the centerline. These widths may vary slightly as design progresses and is finalized.

Access to the existing highway is not controlled to any extent. The only actual control, if it can be called that, is that anyone wanting an approach has to obtain a permit before an approach can be built. Access control for the new highway will be quite similar to that on the existing highway. All approaches will have to be in accordance with the Approach Standards for Montana Highways.

## IV. DESCRIPTION OF EXISTING ENVIRONMENT

A. HUMAN RESOURCES

Columbia Falls is a typical, small Montana community with the usual churches, schools, stores, service stations, etc. Many of the stores, motels and service stations are located along the existing highway, as this is the location that provides the easiest access for the people they service. A considerable number of homes will also be found adjacent to the existing highway. The Montana Veterans Home is located near Columbia Falls, as is the Anaconda Company Aluminum Plant. The national award-winning Hungry Horse News, owned and operated by Me1 Ruder, is located adjacent to the present highway in the vicinity of Nucleus Avenue.

From the beginning of the project to Station 280土, with the exception of the area just south of the FAS 206 Junction, the new highway will pass through private farmland with both sides of the road being cultivated. Near the FAS 206 Junction there are several businesses, including a night club and an outdoor theater. Between Stations $280 \pm$ and $335 \pm$ the project traverses an area of private homes,
some businesses, such as lumber mills and trailer courts, and some vacant area. A cemetery is located south of Station 297土. From Station $335 \pm$ to Station $380 \pm$, the new nighway will pass through a secondary business district of Columbia Falls. There are some private homes in this area, but most of the development is businesses, such as motels, service stations, bars, a grocery store, a lumber mill, etc. Between Station $380 \pm$ and the river at Station $410 \pm$, we are again in an area of some private homes, some businesses, and a considerable amount of vacant land. Approximately one year ago, the city of Columbia Falls obtained 2.94 acres of this vacant land from the U.S. Government for use as a city park. The Forest Service had at one time anticipated using this land for a ranger station. The park is located adjacent to and south of the existing highway right-of-way between Station $383+25$ and $385+50$. This new park will not be affected by this highway project since access patterns will not be changed and no right-of-way will be required from the park. The new sidewalk in this area will provide improved delineation between the park and the highway. From the river to the end of the project, the project traverses a rural farming area.
B. PHYSIOGRAPHY AND GEOLOGY

This project lies in the northern part of the Flathead Valley near the Flathead River. The surrounding valley land is flat to gently rolling, with rich, dry, sandy loam soil that is highly productive. A few miles away will be found mountainous, forested land with many scattered lakes and streams. The Flathead River flows through this area, with many small streams feeding into it. The total upstream drainage area of the Flathead River at the bridge site is 4,464 square
miles. The North Fork drains 1,554 square miles, the Middle Fork 1,133 square miles, and the South Fork 1,654 square miles. The flow from the South Fork is controlled by Hungry Horse Dam, which is located about ten miles upstream from the proposed bridge site.

The dominant influence on the topography of the area was Pleistocene glaciation in the Rocky Mountain Trench, with subsequent modification by the Flathead River. The material in the area consists of alluvial sands and silts; the silt being reworked glacial lake silts. The major portion of the project will be built on glacio-acustrine desposits (well bedded, somtimes varved, sand and silt locally overlain by dune sand) and on glacial drift (till deposits of mostly well bedded gravel and sand). Poor drainage, characteristic of many glaciated areas, does not appear to be a serious problem along the project. However, peat filled kettle holes could be encountered.

## C. VEGETATION

Much of the surrounding area is now used for farming, and therefore, the vegetation mainly consists of crops such as wheat, oats, barley, potatoes, and alfalfa. Small patches of timber consisting of lodgepole pine will be found along the project. There are some areas with native shrubs and grasses, and in Columbia Falls the usual urban type yards with lawns, flowers, and small gardens will be found.

## D. CLIMATE

The average temperature in this area is about $42^{\circ}$. The temperature normally varies from an average of about $65^{\circ} \mathrm{F}$ in July to an average of about $20^{\circ} \mathrm{F}$ in January. An average summer has 16 days with temperature readings of $90^{\circ}$ and above, and an average winter has 15 days with readings
of $0^{\circ}$ or below. In 1970, the highest temperature in nearby West Glacier was $92^{\circ} \mathrm{F}$ in July, while the lowest temperature was $-13^{\circ} \mathrm{F}$ in January.

The average annual precipitation in this area is approximately 28 inches. Normal high precipitation occurs in December, January, and June of each year and varies from three inches to 3.25 inches per month. Average winter snowfall is 69 inches. The Continental Divide forms an effective barrier that protects this area from most of the severe cold waves that sweep down from the Arctic across Canada and into the United States. E. WATER AND AIR

There is an abundance of water resources in the area surrounding this project. This is basically due to the large amounts of snowfall that the nearby mountains receive during the winter months. Hungry Horse Reservoir on the South Fork of the Flathead River lies a few miles to the southeast. Flathead Lake, approximately 20 miles to the south, is the largest natural lake in Montana. There are numerous small streams in the area and the main Flathead River, made up of the North Fork, the South Fork, and the Middle Fork, passes through this project.

Present CO levels in Columbia Falls amount to 4.0 parts per million maximum for one hour, which indicates that there are no air quality problems. Please refer to the letter in the Exhibits Section from the Montana Department of Health and Environmental Sciences.

## F. FISH AND WILDLIFE

There is an abundance of various kinds of wildife in the area surrounding this project. Deer, elk, moose, and black bear are found in the vicinity. However, due to the urban nature of the majority of this project, a person will very seldom see these animals while traveling on
this project. Numerous small animals, such as squirrels, chipmunks, coyotes, bobcats, porcupines, and rabbits also inhabit the area and some of these may be seen as one travels through the area.

Ruffed, blue and Franklin's grouse can be found in the surrounding mountains, while ring-necked pheasants, Hungarian partridge, and various types of waterfowl will be found in the lower valleys. There are probably ruffed grouse in the woody areas near the project; however, their numbers would be minimal.

The stretch of the river in this vicinity is rated by the Montana Department of Fish and Game as a Blue Ribbon Trout Stream. This classification indicates that the stream is of national as well as statewide value as a fishery. It insures an angler that the stream has been surveyed by fisheries biologists and will provide a fisherman a high quality fishing experience. The biologists determine factors, such as suitabiliy of stream morphology, spawning potential, fish populations present, ability of the stream to support fish populations, temperature, bank vegetation, cover, etc. They also assess aesthetics such as water quality, beauty of surrounding areas, climate, freedom from insect pests and snakes, etc. They then determine how available the stream is to fishermen, if there is adequate access, and what types of facilities are nearby for camping or other accommodations, and the nearness of population centers. When all of these factors are considered, along with fishermen use and creel census data, the stream is rated on a scale of one to five. The rating of one indicates a stream of national as well as statewide importance (Blue Ribbon). A rating of two is given to streams of statewide value (Red Ribbon). A three rating indicates a stream of value to large districts
of the state, while a rating of four designates a stream of value to smaller districts of the state, such as counties. A numerical rating of five indicates a stream of local value or one not yet classified. The Department of Fish and Game's Fisherman Log for 1974 shows that the fishermen sampled caught gamefish species at an average rate of 1.3 fish per hour. A catch rate above one fish per hour is considered very good fishing.

Game fish such as Dolly Varden, westslope cutthroat trout, whitefish, and a few rainbow and brook trout are found in the river. The westslope cutthroat has been classified as an endangered species. Non-game fish species are suckers, squawfish, and peamouth chubs.

Trumbull Creek, a small creek located west of Columbia Falls, will also be crossed by this project. A large culvert will be provided for the crossing. This installation has been approved by the Department of Fish and Game. See letter in Exhibit Section. G. POPULATION

The present population of Columbia Falls, according to the 1970 census, is 2,652 people. Also, the following number of people are found in the surrounding area: Columbia Falls rural, 1,568; Bad Rock-Columbia Heights, 1,243; and the neighboring South Fork division (Hungry Horse, Martin City, Coram, West Glacier, and Essex), 1,707. This area has enjoyed a good population growth record mainly due to the increase in employment in lumber and aluminum industries, coupled with the outstanding recreational character of the area.
H. LAND USE

Land use activity along Montana 40 consists for the most part of intermixed, low-density, single-family residential dwellings, highway
commercial establishments, and agricultural croplands for the first 6,000 $\pm$ feet to Hilltop Road. From Hilltop Road to the Columbia Falls corporate limits, approximately $5,000 \pm$ feet, land development intensifies to include slightly higher residential densities incorporated with highway commercial development, a mobile home park, church, and a wood products industry.

Within the city of Columbia Falls, the existing land use configuration has not substantially changed from that illustrated on the 1961 Existing Land Use Figure as attached in the Exhibits Section. Montana Highway 40 provides major east-west access through Columbia Falls and is presently bordered by residential single family low-density, residential mediumdensity, and highway oriented commercial. An existing community park (Pinewood) is located just east of 4th Avenue West. A proposed park is located south and east of Nucleus Avenue. Fourth Avenue West north of the alignment provides access to the Columbia Falls Elementary School and neighborhood park. A combination of 12 th Avenue West and 4th Avenue West allows for circulation to the high school, an elementary school, and proposed junior high sites. Nucleus Avenue (FAS 486) provides the main access to the Columbia Falls Central Business District.

East of the Columbia Falls corporate limits to the Flathead River floodplain, low-density residential single family dwellings adjacent to the proposed alignment predominates with a small number of highway commercial establishments intermingled. The new park is also located in this area to the south of the highway.

East of the Flathead River floodplain to U.S. Highway 2 (the highway termination) land use consists of dispersed farms and cropland, with a small number of low-density non-farm single family residential structures. One small area south of Montana Highway 40 between Station 430 and 440 has
been platted as a subdivision, but to date is relatively underdeveloped.
To the northeast of the project termination is Columbia Heights, containing both highway commercial and single-family residential development.

## I. TRANSPORTATION SYSTEMS

The principal highway serving Columbia Falls is Montana Highway No. 40. This highway passes in an east-west direction through the center of town. About one mile east of Columbia Falls, Montana Highway No. 40 ties into U.S. Highway No. 2, the main northerly route across Montana. There are also numerous other secondary highways and county roads that serve the area.

The mainline of the Burlington Northern passes on the northwest edge of Columbia Falls. The area is also served by Amtrak.

The nearest improved airport is the Glacier International Airport, approximately six miles to the south, between Columbia Falls and Kalispell. Bus transportation is also provided and serves the Columbia Falls area. J. UTILITY SYSTEMS

The Flathead Electric Cooperative, Inc. and the Pacific Power and Light Company serve this area with electric power and telephone. As is generally the case, many of the power and telephone lines are located adjacent to the present highway. The Montana Power Company provides the area with natural gas. There are also many water lines in the vicinity of the project, with most of them being owned by the city.
K. ECONOMIC ACTIVITY

The economic activity of the area is quite diversified with lumber, agriculture, and aluminum production being the three main industries. The
lumber and aluminum industries employ approximately 1,500 people from Columbia Falls and the surrounding area. The agricultural industry is widespread with numerous small farms and ranches being located in the vicinity of Columbia Falls. Some people are employed by the U.S. Forest Service, which has a complex in Hungry Horse, and by the Bureau of Reclamation at Hungry Horse Dam. There are numerous tourist-oriented businesses in the area. The usual supportive type businesses will be found in Columbia Falls.
L. PINEWOOD PARK

Pinewood Park is one of two improved parks in Columbia Falls. It is situated immediately south of Montana 40 and is adjacent to the subject project between Stations $364 \pm 77$ and $366 \pm 02$. The park was originally purchased in 1921 and consisted of almost four entire city blocks. Since that time, due to other needs, the park has been reduced in size and now covers two blocks, except for two lots. Many improvements have been made to the park, including the construction of a swimming pool, tennis courts, amd basketball standards. A portion of the park was developed into a picnic area with picnic tables and an outside fireplace. A sketch of the park and improvements is included in the Exhibits Section
V. PROBABLE IMPACT OF THE PROPOSED PROJECT

## A. PRIMARY IMPACTS

This project will have a considerable effect on the area immediately adjacent to the project. Most of this will occur during the construction process; however, some will be of a longer lasting nature. It will be necessary to acquire a small piece of Pinewood Park on the east edge of Columbia Falls.

The major impact of this project will be beneficial as it will provide a safe and efficient highway facility for the traveling public. This type of highway is becoming more and more necessary for emergency vehicles, buses, commercial vehicles, etc., due to the increasing traffic volumes and greater need for traffic control. It will provide improved and safer access to religious, educational, cultural, recreational, and employment opportunities.

The probable impact of this project on various elements, factors, features, etc. is discussed in the following pages.

1) NATURAL, ECOLOGICAL, OR SCENIC RESOURCES IMPACTS

Approximately 26 acres of new right-of-way will be required to provide room enough to construct this project. This will result in taking approximately 10 acres of farmland or grazing land out of production. The remainder will be taken from home or business frontages. Pinewood Park will be reduced in size by 0.03 acres.

A borrow source will be necessary near the east end of the project to provide enough embankment material to build the necessary fills. The source will be located as close to the project as possible to avoid any long hauls. The contractor will be required
to submit a reclamation plan for approval by the Department of Highways so that wherever the dirt is taken from, the land will be reclaimed according to law. This plan will provide recommended finished land contours, seeding recommendations, etc.

Energy resources in the form of gasoline, diesel fuel, asphalt, and various other oil-based products will be needed to construct this project. We estimate that 100,000 gallons of diesel fuel, 13,000 gallons of gasoline, and 3,000 tons of asphalt will be required.

Some clearing and covering up of existing vegetation will occur as a result of this project. The clearing will be limited to five feet outside the construction limits. The total amount of vegetation disturbed will amount to about 20 acres. The project will be topsoiled and reseeded with grasses as close to the native types as possible.

Since the project is located mainly in an urban area where there is not much wildilife, impacts in this regard are not expected to be significant. A small amount of habitat will be destroyed and, also, widening the highway will make it more difficult for animals to cross and may cause an increase in vehicle-animal collisions. However, since there are very few large game animals in the immediate area, we expect this would apply mainly to small animals such as gophers, squirrels, etc.

There will undoubtedly be some pollution of the Flathead River and Trumbull Creek during construction of the project, and this is discussed further in the section dealing with water quality impacts. Any pollution of the river or creek that does occur will last only a
short time and will not impair the water's ability to sustain fish. Turbidity from construction may make the river or creek less attractive to fishermen at times; however, here again, this will only last for a short time.

The superstructure of the existing bridge will be salvaged for future use by the county or possibly the contractor. The substructure will be removed and disposed of in a suitable manner in accordance with the Department of Highways' Standard Specifications which state:
"Concrete and masonry which is removed from old structures shall, as far as practicable, be placed in backfills or approach embankments or shall be used to riprap the slopes of the embankments or the channel if specified on the plans. Concrete or masonry which cannot be placed in backfills or embankments or used as riprap shall be disposed of as directed and in such manner as to prevent damage to property or the creation of unsightly conditions."

## 2) RELOCATION OF INDIVIDUALS AND FAMILIES IMPACTS

The relocation involved on this project is expected to be as follows:

1. One residential unit.
2. One motel unit.
3. One business, a service station building being used as a wheel alignment shop.
4. One old unoccupied garage; this might require moving cost only.

There are replacement units available in Columbia Falls at the present time, and there should be no need to construct replacement housing.

The residential property affected will have remaining land on which the landowner could relocate. Also, there are vacant lots
and replacement properties available should he choose to move from this location.

If there should be permanent tenants in the one motel unit, there are similar units in the court which could be used for relocation. Also, there are two other courts in Columbia Falls that provide monthly rentals. One court is in the same general neighborhood.

The business will have to be moved to another location. Because of the nature of the business it will not be necessary to relocate on highway frontage, nor will it be necessary to relocate in a particular type building.

Relocation is expected to be accomplished without undue delay as far as time is concerned.

It is the policy of the Montana Department of Highways that no person shall be displaced by the construction of any federally aided highway project unless and until adequate replacement housing has been provided. All replacement housing offered will be fair housing, open to all persons, regardless of race, color, religion, sex, or national origin. Fair housing will be available to all affected persons regardless of race, color, religion, sex, or national origin.
3) SOCIAL IMPACTS

Our Right-of-Way Bureau has determined that there will be no minority groups involved.

The safety features that will be installed, such as lighting, signals, sidewalks, walkways, and wheel chair ramps should be of
benefit generally to school-age children, handicapped, non-drivers, and pedestrians.

This project should have no effect on the illiterate, lowincome, racial, ethnic, or religious groups.

There is no public transportation in Columbia Falls. The project will have no effect on school buses.

We do not expect the change in access to the South Nucleus neighborhood to have any significant impact on the social cohesion of the area. Although the accessibility of some facilities and services may not be as direct, good access will still be available. 4) NOISE IMPACTS

Since this project is located in a built-up area and will receive heavy truck usage, there will be noise problems throughout the length of the project. In this regard, a noise analysis was made and ambient noise levels were measured to determine the extent of the problem. Ambient levels ranged from 62.8 dBA to 70.3 dBA while calculated future levels ranged from 70 dBA to 86 dBA . Upon completion of the analysis and study, it was determined that an exception to the noise standards would be requested and this was done on October 1, 1975. A copy of this request, which contains calculated noise levels, ambient noise levels, discussions of possible abatement measures, etc., is attached in the Exhibits Section of this statement. The request for the exception was approved on April 20, 1976 by the Federal Highway Administration (FHWA) and this letter of approval is also included in the Exhibits Section.
5) WATER QUALITY IMPACTS

The construction of this project will result in some slight water pollution. However, efforts will be made to keep this pollution to a minimum by requiring the contractor to adhere to all state and national laws regarding this matter, and also by requiring him to follow the Montana Department of Highways' Standard Specifications and Special Provisions pertaining to water pollution. Included in the Exhibits Section of this statement is a copy of the Special Provisions for Erosion, Water Pollution, and Siltation Control. This provision was included in the contract for the Flathead River Bridge and will also be included in the contract for the remainder of the project, unless changes are made such that it is included in other material or revised. Also included is a copy of two excerpts from more of the Special Provisions for the Flathead River Bridge contract and a copy of the Authorization to Discharge under the Montana Pollutant Discharge Elimination System. All of these items pertain to methods that will be used to keep water pollution to a minimum on this project.

Outfalls for the storm sewer system in Columbia Falls will be to Trumbull Creek and the Flathead River. Some type of settling basin, riprap layer, etc. will be provided at the outfall locations to allow any sand, silt, etc. to settle out of the water before it is discharged into the river or creek.

Montana, in general, does not use deicing chemicals for removing ice from highways. Instead, sand is used to improve the skid resistance. Some salt, amounting to about 100 pounds per cubic yard of sand, is introduced into the sand to prevent the stockpiles from freezing during
the winter months, and this will result in some salt being placed on the highways along with the sand. However, the amount would be quite small, and the amount reaching the river or creek would be even less, so we do not expect it to have any significant effect on water quality.

Included in the Exhibits Section is a letter from the Montana Department of Health and Environmental Sciences indicating that they have reviewed the project for water quality impacts and have no comments or suggestions. It should be noted that this letter does not pertain to the Flathead River Bridge project since it was let to contract before the letter was written. But rather, it pertains to the remaining $4.4 \pm$ miles.

## 6) AIR QUALITY IMPACTS

Using the simplified analysis technique and the future hourly traffic volumes, it was determined that the carbon monoxide contribution from highway traffic would amount to only 1.5 parts per million. Therefore, taking into account the ambient CO level of 4.0 parts per million, the total CO level near the highway will be 5.5 parts per million. This is considerably less than the 35 parts per million allowed by the National Ambient Air Quality Standards established by the Environmental Protection Agency and, therefore, air quality impacts will be insignificant. 7) LAND USE IMPACTS
A. Land Use Acreage

The proposed $F 100$ (9) alignment primarily follows the existing Highway 40 alignment. For this reason, the existing
land use activity pattern of Columbia Falls will not, to a large degree, be affected by the proposed highway project. Impacts that do result are, in a large part, from the expanded right-of-way required to accommodate project proposals. The land use impact is consistent with, the planning process for the area.

Table I presents total land impacts by land use activity for the F 100 (9) project. Right-of-way impacts totaling 26.27 acres will be greatest to agricultural cropland (9.46 acres), undeveloped open space (5.01 acres) which includes some rangeland, and single family low-density rural development (4.47 acres). These acreage estimates do not include the existing Montana Highway No. 40 right-of-way.

## TABLE I

## LAND USE IMPACTS

Land Use Acres
Residential
Single-Family, Low-Density (rural) ..... 4.47
Single-Family, Medium-Density (urban ..... 63
Commercial
Highway Oriented Commercial ..... 1.66
Mobile Home Park ..... 21
Industrial
Light ..... 1.22
Heavy
Public and Semi-Public Churches ..... 14
Cemeterys .....  17
Parks and Recreation ..... 05
Agriculture
Farmstead ..... 92
Cropland ..... 9.46
Rangeland/pasture ..... 1.65
Undeveloped/open space ..... 5.01
Transportation
Railroad ..... 06
Rural Roads and Highways arterials ..... 15
county roads .....  26
Urban Streets and Highways* arterial ..... 09
collector residential streets ..... 12

[^0]
## B. Structures

As far as can be determined, only one residential structure will require removal, as indicated in Table II from the proposed F 100 (9) project. This structure is located in the rural portion of the project outside the Columbia Falls city limits. One motel unit will require removal within the corporate limits. Close to the proposed right-of-way is an estimated additional 22 residences, which may be adversely affected due to the near proximity, increased noise, and other residential environmental reductions associated with increased traffic. Total persons requiring relocation is estimated at ( $1 \times 3.2$ pop/DU=3.2) 3 persons.

Commercial establishments in which relocation would be required as a result of the proposed project would amount to one.

It would not appear that the number of households to be displaced or the business dislocation effects on the local economy would cause significant impacts to the Columbia Falls community.

## C. Activity Changes

1. The F 100 (9) project area has been currently undergoing a high rate of growth, as indicated in U.S. Bureau of Census sources. Between 1960 and 1970 the city of Columbia Falls had a 24.4 percent population increase; the Rural Census County Division surrounding Columbia Falls, a 40.6 percent increase; and Flathead County, a 20.0 increase. The U.S. Bureau

## TABLE I I

## ESTIMATED IMPACT TO STRUCTURES

## Type

Residential
Rural
Relocation required
Adversely affected
Urban
Relocation required 1
Adversely affected 9
Commercial
Relocation required 1
Adversely affected 3
of Census for 1974 suggests that this trend is continuing. New residential growth, in large part, appears to be taking place to the west, east, and to a somewhat lesser degree, to the north.
2. The continued increase in traffic volumes made possible by the proposed construction project will increase the demand to change adjacent residential land use to highway commercial activities.
3. In addition to right-of-way impacts to adjacent residential areas, would be the further encroachment of highway commercial activities.

## D. Local Planning

## Existing Plan

The Columbia Falls City-County Planning Board was originally organized in 1958 and reorganized in May of 1973. The Board's planning jurisdiction extends two and one-half to three and onehalf miles from the Columbia Falls corporate city limits and would include all of Project F 100 (9). The plan entitled "Columbia Falls City-County Planning Board Master Plan 1963-64" was developed for the Columbia Falls area in 1963 and completed in 1964. In a letter from Mr. George Hanson, Chairman of the Columbia Falls City-County Planning Board (attached in Exhibits Section), it was indicated that the proposed F 100 (9) project would not be in conflict with the 1964-64 Master Plan.

New Plan
A new regional plan is presently being prepared which would
encompass Columbia Falls and the F 100 (9) project area. The new regional plan which is being prepared by the Flathead Areawide Planning Organization, according to Mr. George Hanson, would not have proposals which would be in conflict with the proposed F 100 (9) project. Communication has been attempted with the Flathead Areawide Planning Organization, but no response was received.

## Land Use Controls

Columbia Falls presently has a zoning ordinance within the city limits. Subdivision regulations have been adopted for all of Flathead County. Mr. Hanson's letter states that the proposed project would not be in conflict with the existing zoning ordinance or subdivision regulation.
8) HUMAN RESOURCES IMPACTS

This project should provide improved pedestrian movement in Columbia Falls due to the new eight-foot sidewalk and bike path that will be provided. Crossing Montana No. 40 may be more difficult when the project is completed due to the wider highway; however, at least one and possibly two, signalized intersections will be provided and also several. other painted crosswalks and school crossings are being considered. Facilities for the handicapped (ramps) will be provided at street corners to make it possible for wheelchairs to get on and off the sidewalk without difficulty.

The project should have no adverse effect on the economic activity of the area. Instead, it should be beneficial because of the improved access to Columbia Falls and the improved farm-to-market facility. Also, there will probably be a short-time increase in
economic activity while the project is under construction.

## 9) CONSTRUCTION PROCESS IMPACTS

Numerous impacts will occur to the project area during actual construction. A general disruption of traffic flow will occur and will continue until the project is completed. Air and noise pollution may cause some problems; however, the Montana Department of Highways" Standard Specifications and Special Provisions do contain items which require that these effects be kept to a minimum. During, or even before construction begins, all conflicting utilities will have to be relocated. Power lines, telephone lines, natural gas lines, and waterlines will be involved. There may be some short-time disruption of the systems while they are being moved; however, these disruptions will be short-lived.

## 10) FLOOD HAZARD IMPACTS

The new bridge across the Flathead River has been designed for a 50 -year flood projection, with a flow of 104,000 cubic feet per second. The flood of record occurred in 1964 and had a flow of 176,000 cubic feet per second; however, due to the magnitude and infrequency of such a flow, it would not be economical to design for it. Since the river channel narrows naturally in the area of the new bridge, high main channel velocities are normal. Placing the 486-foot bridge will not constrict the channel appreciably and ; velocities will be only 0.3 feet per second higher than normal.

Building a longer bridge would do little to reduce these velocities due to the natural channel constriction. The new bridge would cause approximately 0.6 feet more backwater than would occur
naturally; however, this is very similar to backwater conditions caused by the existing bridge and will not cause any additional flooding problems.

Volume 6, Chapter 7, Section 3, Subsection 2, of the FederalAid Highway Program Manual is used by the Department and was used for the evaluation and design of the Flathead River Bridge. The major requirement of FHPM 6-7-3-2 is to insure that possible impacts of the proposed facility be evaluated for the basic flood conditions. Since the new bridge was designed to create little or no increase in the upstream water surface elevation over that created by the existing bridge, the new bridge and approaches will not create any adverse impacts.

## 11) PINEWOOD PARK IMPACTS

The proposed highway project will require the taking of a strip of land along the northern boundary of Pinewood Park parallel and adjacent to Montana Highway No. 40. The amount of actual park land taken for right-of-way will be a strip 10 feet wide by 125 feet long, which amounts to 0.03 acres. In addition to the actual right-of-way take, another strip approximately 40 feet wide by 125 feet long will be needed for a construction permit. This will allow the contractor to enter upon this piece of park land so that the necessary road fills can be built. The city of Columbia Falls will retain ownership of this strip and when construction is complete, the permit will lapse. Also, the pedestrian path entering the park from the north will become steeper than now exists and make movement through this area more difficult. The map of Pinewood Park in the

Exhibits Section shows the location of the right-of-way take, their permit and the path. A few trees may also have to be removed during the construction process.

Special measures will be taken to minimize these impacts on the park. They will include the following:

1) Purchase of land to replace the park land taken for highway purposes. Map on Page 7 of Exhibits Section shows location of replacement land.
2) Construction of stairway or ramp for pedestrian traffic on north edge of park.
3) Topsoiling and seeding disturbed ground in construction permit area.
4) Replacement of trees taken during construction.
5) Improvement and delineation of boundary between park and highway. The new sidewalk and curb will perform this function, in addition to their normal use.

## B. SECONDARY IMPACTS

In light of the fact that this project consists of the reconstruction of an existing highway and generally follows the same alignment, secondary impacts upon the area are not expected to be of much consequence.

The possibility exists that the new highway may cause more and increased residental and commercial strip development along Montana No. 40, mainly due to the improved access that will be offered and the improved highway frontage caused by the new curb and sidewalk. However, since much of the area along Montana No. 40 is already developed and the amount of vacant land is limited, the amount of future development may
not become very extensive. With increases in traffic volumes, the parcels adjacent to the new right-of-way will become higher in terms of commercial value. Older marginal commercial operations may give way to more intensive commercial development.

Access to the south of Montana No. 40 in the Nucleus Avenue vicinity will be more restricted than it is at present. There has been some concern that this may adversely affect the residential area lying to the south of Nucleus, roughly between First Avenue West and Second Avenue East. Although access may not be as direct as now exists, access will still be provided to serve the area. The slight change in travel patterns should not make the area less desirable; however, we cannot state definitely what the overall effect will be. The only physical change will be the point of access onto Montana No. 40 itself. All other access patterns will remain the same.

Other than the two possibilities discussed above, secondary impacts are expected to be insignificant.

As has been discussed earlier in this statement, the scope of work on this project has changed numerous times throughout its lengthy development. Five alternates were studied in detail several years ago and they will be presented as they were studied at that time, even though the total length of the project is now different and the Flathead River Bridge is under contract. Also, the alternate that developed in 1974, as mentioned in the Project History Section, will be discussed.

## A. ROUTE ALTERNATES

From the beginning of the project to a point just west of the Burlington Northern tracks, the new alignment will generally follow the existing highway. Through this area a four-lane 88 -foot wide facility will be provided. Other alignments for this portion of the project were studied but it was obvious that following the present highway would cause the least impact, be the most economical, and would provide the best service to the area. From the point just west of the Burlington Northern tracks to the end of the project, detailed studies were made on five different alternates. These were as follows: Four-Lane Alternate "A", Four-Lane Alternate "B", Couplet Alternate "A", Couplet Alternate "B", and Bypass Alternate. Four of the alternates, the exception being the Bypass Alternate, become concurrent again on the west side of the Flathead River and all then follow the same alignment to the end of the project. The Bypass Alternate ties into this alignment about one-half mile east of the river, and from this point ahead all alternates follow the present highway to the end of the project. Each of the above-mentioned alternates is discussed in detail in the following paragraphs. Also, aerial
photo prints, which are included in the Exhibits Section of this statement, indicate the alternate alignments.

1. DESCRIPTIONS
a. Four-Lane Alternate "A"

From the point just west of the Burlington Northern tracks to the vicinity of 1st Avenue, this alternate followed the alignment of the existing highway. At about 1st Avenue, in order to provide a better intersection with Nucleus Avenue, it left the P.T.W. and traveled on eastward for about two blocks before angling southeasterly toward the Flathead River. The new alignment crossed the river just north of the existing bridge and then tied back into the present highway and followed it to the end of the project.

This alternate began with the four-lane 88 -foot wide facility. Between the Burlington Northern tracks and 12th Avenue, it transitioned into a four-lane urban section that provided a two-foot median, four 11-foot driving lanes, two nine-foot parking lanes, and eight-foot border strips and required 80 feet of right-of-way. This section would have been utilized to the curve just east of Nucleus Avenue, where the roadway would then have transitioned into a twolane, 44-foot wide section that would have been utilized to the end of the project.
b. Four-Lane Alternate "B"

This alternate is essentially the same as Four-Lane Alternate "A" until it reaches the vicinity of First Avenue. At this point, instead of continuing on eastward, it would have curved to the southeast and generally followed the existing highway. Just west of
the river, the alignment would have tied back into the alignment of Four-Lane Alternate "A", crossed the Flathead River north of the existing bridge and eventually tied back into the alignment of the present highway, which it would have followed to the end of project. The typical sections would have been the same as for Four-Lane Alternate "A" with the transition from two to four lanes occurring on the curve about one-quarter mile west of the river. c. Couplet Alternate "A"

This alternate separated the traffic into a couplet system with two lanes of eastbound traffic using 11th Street and two lanes of westbound traffic using 9th Street. The 70 feet of existing right-of-way at these two streets would have been utilized and a typical section consisting of two 12-foot driving lanes, two 12-foot parking lanes and 11-foot border strips would have been provided on each street. The alignment for the two lanes of this alternate on 9th Street followed the existing highway from the beginning of the alternate to the vicinity of lst Avenue. At this point, it continued on eastward for about two more blocks before angling southeasterly on the same alignment as Four-Lane Alternate "A". The 11th Street leg of this alternate extended easterly along llth Street until the eastbound and westbound lanes intersected. At this point, the four lanes transitioned to a two-lane, 44-foot roadway. From there ahead, the alignment crossed the Flathead River just north of the existing bridge and then tied back into and followed the existing highway to the end of the project.

## d. Couplet Alternate "B"

This alternate would have been essentially the same as Couplet Alternate "A" until it reached 1st Avenue. At this point the two lanes on 9th Street would have curved southeasterly and followed the alignment of Four-Lane Alternate "B". The 11 th Street leg would have have curved southeasterly at about lst Avenue. The eastbound and westbound lanes would have intersected about one-third mile west of the river and the four lanes would have transitioned to a twolane, 44 -foot roadway at this point. From there to the end of the project, the alignment would have been the same as Four-Lane Alternate "B".

## e. Bypass Alternate

The Bypass Alternate began just west of the Burlington Northern tracks and immediately curved to the southeast, passing on the south side of Columbia Falls. This alignment crossed the Flathead River just east of the existing county bridge and then curved back to the northeast, eventually tying back into the existing highway about one-half mile west of the river. Only two lanes would have been provided for this alternate because the amount of traffic served would be considerably less than on the other alternates.
2. PROBABLE EFFECTS OF EACH ALTERNATE
a. Four-Lane Alternate "A"

This alternate would generally be an economic asset to the area due to the improved access to Columbia Falls and to the existing businesses. However, as this alternate would separate from the existing highway near Nucleus Avenue, it would bypass several
businesses between Nucleus Avenue and the Flathead River. Access to this area would be provided from the existing highway. The section of new alignment between Nucleus Avenue and the river would require the construction of a high fill across an old meander loop of the river and would go through a nice residential area. In the area where the new highway follows the present highway, 10 feet of new right-of-way, plus some construction permits would be required. This alternate would provide a good, right-angle intersection with Nucleus Avenue.
b. Four-Lane Alternate "B"

This alternate would also be an asset to the economic activity of the area and since it would generally follow the existing highway, it would not bypass any existing businesses. Special attention would be required at the intersection of Nucleus Avenue which could involve some alteration of the alignment of Nucleus Avenue. The four-lane section of the alternate through town would require 10 feet of new right-of-way plus any necessary construction permits. c. Couplet Alternate "A"

This alternate would have an adverse effect on the economy of the area, as about one-half of the traffic would be routed away from the existing businesses. The traffic on 11 th Street would be traveling through a residential area and this could devalue the property. East of Nucleus Avenue, the leg of the alternate on 9th Street would require a high, unsightly fill to cross an old meander loop of the river and would pass through a residential area. No new right-of-way would be required west of Nucleus Avenue and east of

13th Avenue as the existing 70 feet of right-of-way would be utilized. A good, right-angle intersection would be provided with Nucleus Avenue.
d. Couplet Alternate "B"

This alternate would also have an adverse effect on the economy of the area as it would route about one-half of the traffic away from the existing businesses. The traffic on 11 th Street would be be necessary at the Nucleus Avenue Intersection. The existing right-of-way on 9th and 11 th Streets would be utilized for the new roadway.

## e. Bypass Alternate

This alternate would route through traffic entirely away from the existing business area and could thus have an adverse effect on the economy. It would pass through a new subdivision and also be between a new Junior High School and most of the town. This would make it necessary for the majority of students to cross the highway to get to school. This alignment could be constructed without interfering with the flow of traffic. Also, it would replace the old county bridge south of Columbia Falls and leave the present bridge on Montana 40 for local traffic.
3. ESTIMATED COSTS

The following table indicates the total estimated cost of each alternate. This includes right-of-way costs, structure costs, construction costs, preliminary engineering, construction engineering and contingencies. The costs do not include the first section of the project up to the Burlington Northern Tracks, but
rather only the part that involves the five alternates.
It should be noted that the following estimates were prepared in about 1969 and have not been updated to present costs. The estimates as shown are the ones that were used to determine the selected alignment and, therefore, updated estimates are not really relevant in this discussion of the alternates.

| ITEM <br> ALTERNATE | R/W, RELOCA- <br> TION, \& UTIL- <br> ITY COST | STRUCTURE <br> COST | CONSTRUCTION <br> COST | P.E., CONST. <br>  <br> CONTRACTING | TOTAL <br> ESTIMATED <br> COST |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 4 Lane <br> A7t. A | $\$ 747,572$ | $\$ 693,000$ | $\$ 538,502$ | $\$ 80,775$ | $\$ 2,059,849$ |
| 4 Lane <br> A7t. B | $\$ 679,773$ | $\$ 693,000$ | $\$ 450,065$ | $\$ 67,510$ | $\$ 7,890,348$ |
| Couplet <br> Alt. A | $\$ 777,776$ | $\$ 693,000$ | $\$ 874,772$ | $\$ 131,216$ | $\$ 2,476,764$ |
| Couplet <br> Alt. B | $\$ 807,462$ | $\$ 693,000$ | $\$ 698,292$ | $\$ 104,744$ | $\$ 2,303,498$ |
| Bypass <br> Alt. | $\$ 530,906$ | $\$ 723,000$. | $\$ 187,199$ | $\$ 28,080$ | $\$ 1,469,185$ |

Presently under construction

## B. RAILROAD CROSSING ALTERNATES

Because of the obvious potential for controversy and differences of opinion regarding the Burlington Northern track crossing on the western edge of Columbia Falls, it was decided that the best way to handle the situation would be to prepare three alternate designs. One alternate would cross the tracks at-grade, the second would separate the highway over the track and the third would separate the highway under the track. Each of these alternates is discussed further in the following paragraphs. The previously mentioned cost estimates are based on an at-grade crossing at this location.

The involved railroad crossing is not actually the mainline track; however, it still experiences a fair amount of traffic. We have been advised that it does handle 12 freight trains and 12 switching movements per week.

1. DESCRIPTION
a. At-Grade Crossing

This type of crossing would provide about the same type of situation as now exists. This alternate would, of course, be the cheapest of the three alternates, as no structure will be involved. Flashing signals and short-arm gates would be provided.
b. Highway Over Railroad

A hump would be introduced into the highway gradeline so that the highway could pass over the tracks without changing their elevation. A quite lengthy and expensive structure would be necessary that would have to provide for four lanes of traffic and sidewalks for pedestrians. Approximately 23.5 feet
of clearance would be provided between the tracks and the bottom of the structure.
c. Highway Under Railroad

A dip would be introduced into the highway gradeline so that the highway could pass under the tracks. A quite expensive railroad underpass structure would be necessary that would have to carry the one railroad track and be long enough so that four lanes of traffic could pass under it. Approximately 17 feet of clearance would be provided between the highway and the bottom of the structure. The underpass structure would provide sidewalks and lighting for pedestrians and would have an adequate drainage system.

## 2. PROBABLE EFFECTS OF EACH ALTERNATE

## a. At-Grade Crossing

This type of crossing would provide the same situation as now exists and generally would have little effect on the area. b. Highway Over Railroad

This type of crossing would require a large fill to raise the highway gradeline enough to get over the tracks, and this fill would extend for a considerable distance on either side of the railroad. A large differential in grade between the existing streets and the new highway would then exist and this would cause a loss of access for the streets and properties in the immediate vicinity of the crossing. The fill would be quite unsightly and would require the purchasing of additional right-of-way. The large fill and structure would substantially
increase the cost of the project.
c. Highway Under Railroad

For this alternate, a dip would be required in the grade line and this would have to extend for a considerable distance on either side of the tracks. This would cause a considerable loss of access in the immediate vicinity of the crossing due to the differential in grade. Additional right-of-way would be required and the cost of the project would increase substantially due to the extra excavation and the underpass structure.
C. MINOR MODIFICATIONS WITHIN THE CORRIDOR

Modifications will be made to the approved route during the design process by projecting away from existing improvements as much as possible.
D. THE DO-NOTHING ALTERNATE

As has been indicated previously in the "Purpose of the Project" section of this statement, the sufficiency ratings for this section of highway are very low and indicate a drastic need for a new highway. Therefore, although this alternate was considered, it would not fulfill the basic responsibility of providing safer and more efficient transportation for the traveling public and was eliminated. Also, the people in the Columbia Falls area are very desirous of having this section of highway reconstructed.

## E. THE SELECTED ALTERNATE

Except for the alignment in the vicinity of the Flathead River, Four-Lane Alternate " $B$ ", as previously described, was the selected alternate. This alternate was chosen on the basis of
providing the best overall service with the least impact to Columbia Falls and the surrounding area. Since this selected alternate generally follows the existing highway, it precludes the need to reorient traffic and generally sustains the local fire protection, mail, school and recreational patterns that now exist. It was also one of the most economical of the five alternates. Near the river, further studies were made to see if it would not be more feasible and economical to cross the river south of the existing bridge instead of north of it. From this study, it was determined that it would be approximately $\$ 6000$ cheaper and therefore, it was decided to cross the river south or downstream from the existing bridge. Location approval for this route was received in 1970. In regard to the railroad crossing alternates, mainly due to the economics of the situation, it was decided that an at-grade crossing with flashing signals would be provided.

Subsequent to these studies and after location approval was received in 1970, it was decided that it would be necessary to restudy the portion of the project between Nucleus Avenue and the Flathead River. The basic item of controversy causing this reevaluation, was the Montana 40 -Nucleus Avenue intersection. One of the alternates, the PTW (Present Traveled Way) Alignment, basically followed the existing highway and was essentially the same as Alternate " $B$ "; and the Alternate Alignment, followed the same alignment as Four-Lane Alternate "A" between Nucleus and the river. The only difference between these and the previous alternates, was that four lanes were studied for each of these lines instead of two. Cost
estimates were made and they were presented and discussed at the November 5, 1975 public hearing. The cost estimates indicated that the PTW Alignment was about $\$ 250,000$ less than the alternate and, therefore, this line was once again approved. However, it is now four lane. Design of the project is now proceeding on this basis. Impacts related to these two alternates are essentially the same as those listed for Four-Lane Alternate "A" and Four-Lane Alternate "B".

The exhibits section of this statement contains an aerial photo print showing the approved alignment.

## F. ALTERNATES TO AVOID PARK LAND

Several alternate alignments and proposals have been considered in determining the most appropriate location and design of this project. These alternates have been previously described and the probable beneficial and/or adverse effects of each of them has been discussed. Some of these previously described alternates would have avoided the necessity of taking the 10 -foot strip of Pinewood Park. However, none of these were chosen and the reasons for choosing one of the alternates that will affect the park has been explained.

The chosen alternate, essentially Four-Lane Alternate "B", will require 10 feet of new right-of-way plus a 40 foot construction permit on the south side of existing Montana Highway No. 40. The possibility of taking the new right-of-way and the permit on the north side of the existing highway away from the park was given a great deal of consideration and a study was made to determine if it would be feasible. Construction costs through the area would be essentially the same; therefore, the main difference between shifting 10 feet north or south would be the cost of the right-of-way. If the shift were to
be made for the park area, it would have to be carried on through town so that a jog would not be introduced into the alignment. Therefore, the study actually compared taking a 10-foot strip of right-of-way on the north side of Montana No. 40 between Stations $330+$ and $370+$. The results of that study are as follows:

North Side - The following businesses would either be displaced or seriously damaged at an estimated cost of $\$ 308,240$.

```
Two motels
One garage
One gun shop
One Dairy King
Three service stations
One grocery store - large
One lumber company - large
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South Side - The following businesses would either be displaced or seriously damaged at an estimated cost of $\$ 83,370$.

One small apartment
One bar (parking only)
One cafe (parking only)
Two service stations

Based on these results, it was decided that the extra 10 feet of right-of-way should be taken from the south side of the highway as it would be the most economical and would cause the least amount of disruption to the existing businesses.

Therefore, it has been determined by the State of Montana Department of Highways that there are no prudent and feasible alternatives to the taking of a portion of the Pinewood Park for highway purposes. The selected alternate was chosen on the basis of economy, service to the traveling public and community, and least amount of environmental impact.

## VII. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT

 AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITYSince this project essentially follows the present highway and access will remain much the same as now exists, we do not expect it to cause any significant foreclosure of future options.

The project will have several disadvantages; however, these adverse effects will be more than offset by the advantages and improvements that the new highway will offer. The major disadvantages or environmental losses will involve the taking of land for right-of-way, the taking of a small section of Pinewood Park for right-of-way, and the disruption of the area during the construction process. Once the project is completed, traffic congestion will be eliminated and the flow of traffic will be much improved. The construction of this section of highway will complete the total reconstruction of Montana No. 40 and a greatly improved transportation facility will be provided. The appearance of the new roadway with the new sidewalk and curb and gutter will be appreciably more pleasing than the existing highway. The storm water problems will be eliminated by the new storm drain system and the new lights will improve visibility on the project. The overall project will provide a safe and efficient facility for the traveling public.
VIII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The natural resources generally used for new highway construction will be committed on this project. These will include gravel, oil, gasoline, diesel fuel, steel, wood, labor, etc. Some of these resources, such as the gravel and the oil products in the plant mix surfacing, may be recycled for further use and so are not necessarily irretrievable.

However, the gasoline, diesel fuel, manpower, etc., which is totally expended is, of course, no longer available for any other use.

A minor amount of wildlife habitat will be destroyed and will no longer be available for future use.

Since Montana No. 40 is a major cut-across between U.S. No. 2 and U.S. No. 93, the improved highway may attract more people to use this route. This would then in turn reduce the number of people traveling through Kalispell, the major city in the immediate area.

There does not appear to be any significant irreversible commitment of resources that would curtail the range of potential uses of the environment.
IX. IMPACT ON PROPERTIES AND SITES OF HISTORIC AND CULTURAL SIGNIFICANCE

Consultation with the National Register of Historic Places and the State Historical Preservation Plan indicates that this project will not affect any National Register or State Preservation Plan properties. Also, the State Historical Preservation Officer of Montana was contacted concerning any possible project effects upon any historical or archaeological sites which may be in the process of nomination to the National Register or the State Preservation Plan. We were informed that the project would not affect any such sites. (See Page 75.)
X. COORDINATION WITH OTHERS

On December 5, 1972, the Draft Environmental/Section 4(f) statement for the subject project was distributed for comment. The list of agencies, organizations, individuals, etc., which received copies is included in the summary of this statement. Those who commented are also indicated in the summary. All comments which were received follow, and
with each comment we have attached a discussion of the comment, or an explanation of where a discussion of the comment can be found in the statement. Also attached is other pertinent correspondence.

Dear Mr. Anderson:


This is in regard to your request for the Department of the Interior's comments on the draft environmental/Section 4 (f) statement for reconstruction of Montana Highway 40, Columbia Falls, Flathead County, Montana.

## Section 4(f) Comments:

Based on the information provided in the statement, there appears to be no feasible and prudent alternative to the taking of $.03 \pm$ acres from Pinewood Park for highway use. However, we do not believe that all possible planning to minimize harm to the remaining lands at Pinewood Park has been done.

The statement fails to indicate that this Department's Bureau of Outdoor Recreation provided matching assistance from the Land and Water Conservation Fund for the construction of a swimming pool in Pinewood Park. Park and recreation areas receiving Fund moneys are subject (in their entirety) to the provisions of Section 5(f) of the Land and Water Conservation Fund Act which requires that any change from recreational land use must be approved by the Secretary of the Interior. This Section of the Act also requires that recreational lands to be taken must be replaced with properties of at least equal fair market value and reasonably equivalent usefulness and location. There is no provision under this Section of the Act for acceptance of cash in payment for the recreational lands to be taken. In order to initiate a change in land use within the park, the park agency of the City of Columbia Falls would have to submit the necessary request for the approval of the Secretary of the Interior through its State Liaison Officer for Outdoor Recreation: Mr. Wesley R. Woodgerd, Chief, Recreation and Parks Division, Department of Fish and Came, Mitchell Building, Helena, Montana 59601.

The draft statement indicates that in addition to the taking of a narrow strip for right-of-way from Pinewood Park, a strip $25^{\prime}-40^{\prime}$ by $125^{\prime}$ will be needed for a construction permit. The discussion is inadequate concerning the purpose, need, impact and alternatives of this additional taking. Therefore, we cannot concur to this additional encroachment based on the information provided. The statement should discuss whether or not there are other tracts suited for this purpose with less adverse impact on the environment.

We also note that trees will be removed from the park to accommodate the right-of-way as well as the construction permit area. The statement should discuss provisions to replace these trees in kind.

We were pleased to note that design features will be incorporated to provide for pedestrian access by a stairway or ramp. We suggest that perhaps both facilities be provided with the necessary safety features such as signalization at the intersections of Fourth Avenue West and Montana 40. Features to accommodate the handicapped should be included. A fencing plan should also be prepared and coordinated with park officials.

The City of Columbia Falls has expressed a desire that the Highway Department purchase Lots 1 and 2 of Block 68, and deed this property to the City as an addition to the park. This replacement acreage would be most desirable since it is adjacent to the park and could possibly satisfy the replacement of parklands as required by Section 5(f) of the Land and Water Conservation Act.

All measures to minimize harm to Pinewood Park should be coordinated with and approved by the concerned City park agency and evidence to that effect included in the final statement.

## Environmental Statement Comments:

The final statement should indicate that the project falls within the study area of the Flathead River, a potential component of the wild and scenic rivers system, as established by the Wild and Scenic Rivers Act of 1968 (Public Law 90-542). This law provides that the administrator of the river study, in this case the Secretary of Agriculture, should be consulted to make sure that the subject project is not in conflict with the purposes of the Wild and Scenic Rivers Act. The results of such consultation should be included in the final statement.

## Description of the Project and Surrounding Area:

This section should be expanded to discuss location of any borrow and/or spoil areas needed for project purposes. Other sections of the statement dealing with the description of the existing environmental setting can describe the borrow and/or spoil area locations under preproject conditions as they relate to flora, fauna, and aesthetics.

There is often the opportunity to design and develop highway fills and
D.

The Flathead River should be identified as an important fishery through reference to its classification, by the Montana Fish and Game Department, as a "Blue Ribbon" stream.

## Description of Existing Environment:

The final statement should include a description of the mean high and low flows expected in the Flathead River.

Kokanee salmon should be included in the listing of game fishes taken from the Flathead River. Also, it would be appropriate to mention that the indigenous cutthroat trout of the Flathead River is the Montana westslope subspecies, classified as "endangered." This section of the statement indicates carp and suckers (non-game species) are found in the Flathead. From the information available to us, carp are not present in the river near Columbia Falls, but rather suckers and squawfish are the principal non-game fishes. The final statement should clarify this point.

Probable Impacts of the Proposed Project:
A description of the impacts anticipated in the hydraulic characteristics of the channel due to the proposed bridge should be discussed. This may include the expected velocities under the bridge, comparison of conveyance through the old and proposed bridge openings, and whether or not the proposed bridge is likely to cause scour and fill or overbank flooding. The statement should also consider how these hydraulic characteristics will affect the design of the bridge.

Acknowledgment should be made of adverse impact on the Flathead River fishery from the temporary pollution which the project is expected to produce. It is anticipated that sediment introduced during construction of the new and removal of the existing bridge will be the chief offender. Even if the river's capacity to sustain fish is not 1mpaired, turbidity resulting from project construction will make the river less attractive to $f$ ishermen.

Widening of the highway will entail destruction of wildlife habitat, at least to the extent that vegetation-supporting land will be displaced by pavement. Although the acreage may be small, this adverse effect of the project should be acknowledged.

It should also be recognized that widening of the highway, conducive to faster traffic, is likely to result in increased incidence of vehiclewildlife collisions. Such collisions represent not only a wasteful loss of wildife, but a danger to the traveling public.

## Alternatives:

One alternative for the railroad crossing would be an underpass. Relative to this alternative, it would be desirable to describe the depth to ground water at this proposed underpass location since construction might require lowering the water table in the area. Should this water table lowering be necessary, nearby wells and springs could be affected and waste from the excavation may need disposal.

## Irreversible and Irretrievable Commitment of Resources:

The prospective destruction of wildlife habitat should be discussed as an irretrievable resource commitment.

As a final comment, the statement may indicate that no eligible sites for registration as National Historic, Natural, or Environmental Education Landmarks are involved. However, the environmental statement should reflect consultation with the National Register of Historic Places, and discuss whether any National Register properties will be affected. If the project has an effect on a National Register listing, the statement should reflect further compliance with Section 106 of the National Historic Preservation Act of 1966 (P.L. 89-665). The final statement should also contain evidence of consultation with the State Liaison Officer for Historic Preservation concerning project effects upon any historical or archeological sites which may be in the process of nomination to the National Register of Historic Places. In your State, he is Mr. Wesley R. Woodgerd, Chief of Recreation and Parks Division, whose address appeared earlier in this letter.

Because of the Department of the Interior's concein for the Section 4(f) aspects of the proposed project, we would be willing to review and comment, on a technical assistance basis, on any subsequent material which may be prepared. The field office assigned responsibility for this cooperation is the Office of the Regional Director, Bureau of

Outdoor Recreation, Mid-Continent Region, P.0. Box 25387, Building 41, Denver Federal Center, Denver, Colorado 80225.

The final position on the Section $4(f)$ determination will be made by the Secretary of the Interior when we are asked by the Department of Transportation to review the final statement.

Sincerely yours,


Mr. H. J. Anderson Director of Highways Montana Department of Highways Helena, Montana 59601

A. Refer to Section $4(f)$ Statement.
B. The portion of the Flathead River upon which the subject project is located is not in the section of the river being studied for possible inclusion in the Wild and Scenic River System. The study limits are located approximately five miles upstream at the junction of the South Fork of the Flathead and the Flathead River. The following maps has the limits of the Flathead River System Study Area and the location of the project shown thereon.
C. Refer for Pages 18 and 19.
D. Although this may be feasible and desirable on some projects, it was not on this one, due to the nature of the project, the terrain, and the fact that most of the project is in an urban area.
E. Refer to Pages 13 and 14.
F. Refer to Pages 31 and 32.
G. The Montana Department of Fish and Game did not indicate to us that Kokanee Salmon should be included in the list of game fish for the Flathead River, so we did not include it. For the remainder of the comments see Page 14.
H. Refer to Pages 31 and 32.
I. Refer to Pages 19 and 20.
J. Refer to Page 19.
K. Refer to Page 19.
L. Since the underpass alternative to the railroad crossing was not chosen as the selected alternate, groundwater will not be a problem.
M. Refer to Pages 49 and 50.
N. Refer to Page 50.


Hnited States Department of Agriculture
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$F: E \in \mathbb{E}$ FEQERAL BUILDING MISSOULA, MONTANA 59801 JAN 3 U 1973
helena, montana

Mr. H. J. Anderson
Director of Highways
State of Montana
Department of Highways
Helena, Montana 59601
L

Dear Mr. Anderson:
We have reviewed the Draft Environmental Statement and Section 4 (f) Statement for the Columbia Falls-East \& West section of Montana Highway 40.

This Statement generally meets with our approval. In regard to the $4(f)$ Statement none of the right-of-way is on Forest or even close to Forest land.

We do have a couple of suggestions that may help clarify the general transportation planning situation as described early in the report.

On page 4, it should be mentioned that the railroad involved is a branch line. This is finally mentioned under Railroad Crossing Altematives on page 41. However, the status of this railroad is an important aspect of the project description and is the reason that there are some crossing alternatives.

On page 5 there is a discussion about the Nucleus Avenue intersections and the large tuming movement predicted. This is attributed to the
B. business district. Another significant factor that should be mentioned is that this intersection is the lower terminus of FAS 486 which is the approach to the west side of Glacier Park and the main access to the aluminum plant.

A. Refer to Page 8.
B. Refer to Page 8.

Mr. H. J. Anderson
Director of Highways
Montana Department of Highways Helena, Montana 59601

Dear Mr. Anderson:
We have reviewed your Draft Environmentai/Section 4(F) Statement for Project F-100(9) Columbia Falls - East and West and have the following comments:
a. At the bottom of page 7 , you say that the "statement is being prepared to cover the entire 4.5 mile project" which would include a new bridge. However, no information is given in the statement on how the new bridge might differ from the existing Flathead River Bridge or what the environmental impacts would be. We suggest that appropriate discussion of the new bridge and its impacts be included in the statement.
b. The evaluation of flood hazard requirements as outlined by Executive Order 11296, "Evaluation of Flood Hazard in Locating Federally Owned or Financed Buildings, Roads, and Other Facilities, and in Disposing of Federal Lands and Propertics," should be considered during planning and design of all proposed structures adjacent to watercourses in the program area. We suggest that a discussion of these requirenients be included in Section V, "Probable Impacts of the Proposed Project."

We appreciate the opportunity to reviem and coment on the draft environmental statement prepared by your agenoy.

P. O. Fox 970, Bozeman, Montana 59715

January 16, 1973
Mr. H. J. Anderson
Director of Highways
Department of Highways
Helena, Montana 59601
Dear Mr. Anderson:
Re: Draft Environmental Impact Statement - Flo
Columbia Falls - East and West
We have reviewed the draft impact statement with regard to erosion control during and following construction, control of sediments, drainage, pollution control, and revegetation following construction.

We find that plans to stabilize areas disturbed by construction are adequate. We feel that adequate control measures should be installed to prohibit movement of sediment from the construction site to the Flathead River. A statement to this effect would strengthen your environmental statement.

Sincerely,


For A. B. Linford
State Conservationist
CC: Kenneth E. Grant, Administrator, SCS, Washington, D. C. T. C. Byerly, Coordinator of Environmental Quality Activities, Office of the Secretary, USDA, Washington,
(10) copies sent - Attention: General Counsel

Council on Environmental Qi 722 Jackson Place, iv. W. Washington, D. C. 20006

A. Refer to Pages 19, 20, 23, and 24.

Re：Draft Environmental Impact Statement Project J－1．00（9）；Columbia Falls East and West

Mr．H．J．Anderson
Director of Highways
Montana Department of Highways
Helena，Montana 59601

Dear Mr．Anderson：


We have reviewed the above referenced statement as submitted to our Department and have no adverse comment regarding areas of responsibility under our programs．

Thank you for submitting the statement for our review．
Sincerely，




Mr. H. J. Anderson
Director of Highways
Department of Highways
Helena, Montana


Helena, Montana January 10, 2973

ATTN: Mr. Grover O. Powers

Dear Mr. Anderson:
We have reviewed the draft environmental impact statement - Section 4 (F), for Froject $F-100$ (9), Columbia Falls - East and West, and have the following comments:

The project area does not appear to have any significant features as far as game animals are concerned. There are probably some ruffed grouse in the woody areas, but their numbers would be minimal.

On page 12, Section F , third paragraph, it states there are carp in the Flathead River. There are no carp in the Flathead River. Non-game fish species are suckers, squawfish, and peamouth chuns.

We would also prefer to see the fish listed in the proper perspective of their importance; i.e., Dolly Varden, westslope cutthroat trout, whitefish, and a few rainbow and brook trout.

On page 21, Section D, concerning the discussion of water and air pollution, we would like to see more discussion on how the contractor will be required to comply with the pertinent laws concerning these
C. pollution problems. The statement that construction will result in the temporary increase in water pollution, and that the contractor will be required to adhere to all pertinent laws in regard to these problems seems to be contradictory.

On page 26, concerning fish and wildlife, and pollution of the Flathead River, the same comments as above can be applied. Again, there should be detailed D. discussion on the prevention of even slight pollution of the Flathead River.

Mr. H. J. Anderson
Page Two
January 10, 1973

We also believe that there should be a coordimated effort between construction activities and water releases from Hungry Horse Reservoir. This could effectively reduce sediment pollution problems.

We are in favor of the four-lane Alternate "B" because this alternate route is out of the flood plain until it reaches the river for the crossing.

We hope these comments are useful and appreciate the opportunity to review the draft statement.

Sincerely.


RALPH W. BOLAND, CHIEF' BUREAU OF ENVIRONMENT

RWB: ss
cc: Mr. Fletcher Newly
Mr. Lloyd Meyer
Mr. Tom Hay
Attn: Mr. Otis Robbins
A. Refer to Page 14.
B. Refer to Page 14.
C. Refer to Pages 19, 20, 23, and 24.
D. Refer to Pages 19, 20, 23, and 24.


DEPARTMENT OF TRANSPORTATION UNITED STATES, COAST GUARD

State of Montana Department of Highways


ADDRESS REPI.Y TC
COMMARDDER (m)
THIFTEENTH COAST GUARD DISTIRI 618 SECOND AVE.
SEATTLE. WASH. SHIOA
5922
Ser mep 012
5 January 1972

Helena, Montana 59601
Gentlemen:
The draft environmental statement for project F-100(9), Columbia Falls East and West has been reviewed from a water pollution control aspect. It appears that the state is prepared to protect the water quality of rivers in accordance with applicable laws. These measures we considered adequate.



Dear Mr. Powers:
The Environmenta? Protection Ajency has reviewed the draft environmental statement for Project F-100(9), Columía Falls East and West. The following comments are offered for your consideration in preparing the final ervironmental statement.

1. The statement does not generally present sufficient information to ascertain environmental impacts in the areas of water quality, air quality, noise and solid waste.
2. Water Quality - The statement should discuss the effects on the quality of the Flathead River of runoff containing winter de-icing chemicals. Information should also be presented on the types of chemicals that would be used.
3. Air Quality - Specific data should be presented on present ambient air quality, vehicular emissions for the present ADT, and vehicular emissions for the projected ADT of 14,540
B. vehicles per day in the urban area in 1996. The vehicular speed at which these calculations are made should also be included.
4. Noise - Information on present ambient noise levels for the closest sensitive institution (hospital, school, etc.) or residential area should be included in the statement and also predicted noise levels after the project is completed. This information should be included for the selected route and its alternatives. Strictly from the noise viewpoint, the bypass
C. alternate may be the most desirable and the selected route the least desirable. Though location approval was given prior to the effective date of PPM $90-2$, the noise aspects of the project need to be presented in order to ascertain the impact.
5. Solid Waste - Solid waste disposal must be in accordance with the SoTid Waste Act, Executive Order 11507, and Rules and Regulations as printed in the Federal Register on November 25, 1971. Specific information is needed on disposal plans for the
D. present bridge. Since the project is to be a two-lane facility through the bridge area, perhaps the present bridge could be retained, thereby eliminating a potential disposal problem.

Page 2 - Mr. Grover 0. Powers
In accordance with the system used by the Environmental Protection Agency to categorize the nature of its comments on environmental statements, our comments are being placed in Category 2, Inadequate Information.

Please send us a copy of the final environmental statement.


Regional Administrator

A. Refer to Pages 23 and 24.
B. Refer to Pages 12 and 24.
C. Refer to Page 22.
D. Refer to Page 20.


Reference is made to your letter of December 5, 1572 recurding 100 (9) Columbia Falls--Esst and West.

The enviromental statement has been resowed. I mamiar with the project proposea.

Ny conclusions are that you have consiciered the aspects we woul be most concerned with, such as exosion control both during and following construction, control of sediments, driinsge, pollution control and revegitation follwing construction. Gruzuill Creek is ine on?. major dreinage and I am sure your staff is vell avore of tire rosuint problems which may occur during peak erring flows ant wili inejui adequate size facilities to hanale the problem.

It also appears thet the plan best satidizes the Ciw of Counar Falls whe are most vitally concerned. nime project has bent div: sced with the local Highway Departrent design cngineer and the fisters County Comaissioners.

In view of the above considerations, I wee no reabon for objection to the report and propesal.


Lekis $W$. Fuller
District Conservationist
Soil Conservation Service
cc: SCS, Bozeman
SCS, Missoula

A. Refer to Pages 23 and 24.
B. Refer to Pages 12 and 24.
C. Refer to Page 22.
D. Refer to Page 20.


December 13, 1972
Montara Departraent of Highways Sixth Avenua and foberts Street





Attention Grover O. Powers, P.E., Supervisor-Pre-Construction Section

Gentlemen:
Re: F-100 (3) Columbia Falls - East and West
The Division of Heronautics, Department of intergovernmentil Relations, has reviewed your environmertal statenent on the above stated project East and West Columbia Falis, Montanc. The proposed project and selected alternate will not adecrsely affect either of the public-use airports in the vicinity of Columbia Falls. We, therefore, concur that the long-range improvements in public transportation in the area fully justific.s the project.

We do ask that adequate signing be provided throughout the project to identify the routing to Glacier Park International Airport which is located immediately west of FAS206 Soutil of the proposed project. This would include signing such that highway travelers proceeding west from Glacier Park on U.S. \& would be directed onto Montana Highway 40 through Columbia falls to the intersection of Hign!:ay 40 and FAS?06, Hence, southion 206 to the airport; and himazy travelers traveling cast on Montena 40 would identify the intersection and turn south on 206 to the subject airport.

Sincerely yours,
Willialic. Hunt, Administrotor

Horthie li. Rauscher Leputy Adritinistreior
cc: in. Ray liall, Manager
Giacier Part ?nternational Airport
A. The Department of Highways does not normally provide guide signs at any considerable distance from the airport and they probably will not be provided at the locations suggested in the Aeronautics Division's letter. They will be provided at the main entrance to the airport, which is located on FAS 206.



Helena, Montana
March 8, 1973
Ref:
F-100 (9)
Columbia Falls East and West

Mr. Grover O. Powers, P.E., Supervisor Preconstruction Section
Montana Department of Highways
Highway Building
Helena, Montana 59601
Dear Mr. Powers:
This will be with reference to your request that we review the alignment of the above referenced project and possible effects upon any historical or archeological sites which may be in the process of nomination to the National Register of Historic Places.

We have reviewed the alignment and find that the proposed alignment does not affect any historic or archeological sites being processed for nomination to the National Register.

Sincerely,

## Galilei, (E? कablutity Ashley C. Roberts Administrator Recreation and Parks Division



## XI. EXHIBITS

1) Location Map ..... 77
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3) Aerial photo showing selected alignment ..... 79-80
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EXHIBIT
NO.I

[ 77 ]





Department of Heath and Environmental Sciences
July 9, 1975

Mr. Stephen C. Kologi, P.E., Chief Preconstruction Bureau Department of Highways Helena, Montana 59601

Re: F-100(9)
Columbia Falls E. \& W.

Dear Mr. Kologi:
We have reviewed the plans of the referenced project and find there should be no adverse effects on air quality from the construction of this project. Because of the number of people living along the area, extra precautions will be necessary to control dust during the course of construction. Beyond this, we know of nothing existing or planned that would adversely affect this project in air quality considerations.


RCN: lh


Mr. Stephen C. Kologi. P.E., Chief Preconstruction Bureau Department of Highways Helena, MI 59601

## Dear Sir:

 projects mentioned in your letter of March 23, 1976. We have not measured CO at any of these locations. The best we could do is to estimate the present levels based on monitoring in other areas of the state and average daily traffic readings taken in these areas. Using this method, I would estimate the CO levels as:

$$
\mathrm{F}-100(9)
$$

Columbia Falls - E \& W
CO approximately 4.0 ppm max. l-hour.
F-191(15)
Elmo-Rollins
CO approximately 0.0 ppm annual average and 1.0 ppm max. l-hour.

F-191(30)
Flathead County Line - So.
CO approximately 0.0 ppm annual average and 1.0 ppm max. l-hour.

BRF-224(14)
lst Avenue No, Bridge
Gneat Falls
CO approximately $14.0 \mathrm{ppm} \max 8$-hour and $28.0 \mathrm{ppm} \max 1$-hour.
If you have any further questions, feel free to contact me.
Sincerely,


Air Pollution Meteorologist

PRRKS PLKA



Vr．George Hamson，President
lolumbia Fells City County Planning Board
Pox 417
Columbia Falls，Montana 59912
Dear Mr．Hanson：
The Montana Department of Highways，as you may have heard，is presently considering reconstruction of a $4.7 \pm$ mile section of Montana Highway 40 which runs generally east and west between U．S． 93 and U．S． 2.

The project begins approximately $2 \frac{1}{4}$ miles west of Columbia Falls at a point about 2000＇west of the Montana 40 －Federal Aid Secondary Route 206 intersection．This point of beginning is the end of the Columbia Falls－West project which was just recently completed．From here，the project proceeds easterly，generally following Montana 40 through Columbia Falls and across the Flathead River until it ties into U．S． 2 in Columbia Heights．

Several different typical sections may be used throughout the project． The first $1000^{\prime} \pm$ of the project will consist of a transition from the $44^{\prime}$ roadway on the Columbia Falls－West project to an $88^{\prime}$ wide， 4 lane section on this project．This $88^{\prime}$ wide section，consisting of $4-121$ driving lanes， $10^{\prime}$ shoulders，and a $20^{\prime}$ painted median will be used for the next $1.1 \pm$ miles at which point the roadway will transition down to a 64 ＇wide curb and gutter section．This section，which will provide 4－11＇driving lanes，9＇ shoulders，and a $2^{\prime}$ painted median，will be utilized for the next $1.0 \pm$ miles to the Columbia Falls city limits．From here ahead for the next $0.8 \pm$ miles，the roadway will be the same，however， $8^{\prime}$ wide sidewalks will be provided on both sides of the roadway on through town to the east city limits which is just past Nucleus Avenue．The project will then transition back to an $88^{\prime}$ wide curb and gutter section with an $8^{\prime}$ sidewalk on the south side，which will be used for the next $0.6 \pm$ miles to the west end of the Flathead River Bridge，From the east end $\overline{\mathrm{f}}$ the Bridge to the end of the project，about 0.9 miles，the same $88^{\prime}$ wide rural section that was used at the beginning of the project will again be utilized．

Mr. George Hanson Page 2
February 11, 1976
In an effort to determine and evaluate project impacts the Planning and Research Bureau of the Montana Department of Highways mould like to request your Planning Board's assistance in acquiring the following information:
A. Planning Organization


1. Date your planning agency was organized.
2. Approximate area of your Planning Board's jurisdiction. $21 / 2$ to $3 / 2 \mathrm{miles}$ from chits $\therefore$ city hints Enciudes all of F 100 (9)
B. Area Plans
3. Has any local comprehensive, master or regional plans (land use, recreation, etc.) been developed other than the "Columbia Falls City-County Planning Board Master Plan" 1963-64 which would encompass the highway project area? Would the proposed F100(9)
No Project be in conflict with any proposals of these plans? Are the objectives, and proposals of the 1963-64 Columbia Falls Master Plan still valid objectives of the present local planning organizations? yes - ilost/y
4. Are there any more recent locally adopted planning goals and objectives of which the proposed F1OO(9) Columbia Falls East and West Project would be in conflict?
5. Are there any known Federal or State Plans presently in existance or underway which their proposals may be effected by the proposed highway project?
C. Other

* C. Other organization may have concerning the Columbia Falls - East ciculuch and West Project.

2. Presently are there any building construction codes, zoning ordinances, subdivision regulations in affect along the project ${ }^{y i}$ alignment? If yes would the proposed project be in conflict NO with these codes, ordinances or regulations?

* 3. Are there any proposed developments not otherwise mentioned which are being considered adjacent to the project alignment?

Should any questions arise concerning this request please contact.

SECOND AVE. WEST
ELEVENTH ST. SO.
PRESENT PARK AND FACILITIES


## STATE OF MONTANA <br> DEPARTMENT OF HIGHWAYS

HELENA, MONTANA 59601
October 1, 1975
in rfply refer ic
F-100 (9)
Columbia Falls - E \&
U. S. Department of Transportation

Federal llighway Administration
501 North I'ce
Helena, Montana 59601
0830.22 Al

Gentlemen:
This is to request an exception to the design noise levels for the subject project.

The project begins about $2^{\frac{1}{4}}$ miles west of Columbia Falls near the LaSalle Road (FAS 206) intersection and extends casterly on through Columbia Falls and across the Flathead River until it tics into U. S. Highway 2 at Columbia lleights. Total length of the project is $4.7 \pm$ miles. The proposed work will involve reconstruction of the existing 2-lane highway to a new 4-lane section. The width near the beginning and end will be $88^{\prime}$ while the portion through town will be $64^{\prime}$ wide. Curb and gutter, sidewalks, and lighting will be provided on the urban portion of the project. New right-of-way will be required throughout.

Traffic volunes are quite high and vary considerably throughout the project. The attached traffic datil sheet indicates 1973 and predicted 1998 traffic volumes at several points.

The project is lociated in a residential-comnercial area with nanerous homes, three churches, threc motels, one park, one cemetery, and numerous business establishments located adjacent to it. This type of land use places the adjacent area generally into land use category $B$ and $C$, as defined in the Federal Highway Administrations 90-2. N1lowable noise levels for category 13 are 70 d 3 A and for category C are 75 ail..

Through the use of a federal Highway Administration approved noise prediction method (NCHMP 117), future noise levels were calculated at various places along the project. The following infornation was used in the calculations:

1) Bespinning of project to 11 th Ave. $-11 N=1678-$ Speed $=45 \mathrm{mph}$.
2) 11 th $\Lambda v c$. to 7th Ave. -1$) 川 N=1822-"=35 \mathrm{"}$
3) 7 th Ave. to 3 rld Ave. $-\mathrm{DIN}=2254-{ }^{\prime \prime}=25 \mathrm{mph}$.
4) 3rd Ave. to Nuclous Ave. $\quad-\mathrm{DHN}=1613-\quad "=25 \mathrm{mph}$
5) Nucleus Avc. to end of project - DHV $=1224-\quad$ ' $=35 \mathrm{mph}$ $\therefore$ 'Irucks $=50^{\circ}$
[90 ] . 90

Anbsent noise measurements were made on August 5 and 6, 1975, for comparison purposes. The results of the prediction calculations and the ambient readings are tabulated below.

## Location

## Predicted Ambient

1. $235+30$ - House 85 'Lt.
2. 285+80 - House 95'Lt.
(Ambient at 65 'Lt.)
3. $313+50$ - House $85^{\prime}$ Rt.
4. $318 \mp 00$ - Ilouse $85^{\prime} \mathrm{Rt}$.
5. $334+50$ - Church 153'Rt. 70
(Ambient $115^{\prime} \mathrm{Rt}$ )
$75 \quad 70.3$74

$$
75
$$2+50 - House $50^{\prime}$ Rt.

7. $347+25$ - Church 65'Lt.
70.3
67.2

$$
75
$$

TAmbient 55' Rt.)70
(May require relocation)
8. 354 +50 - Motel 45'Lt.
(May require relocation)
9. $300+00$ - House $70^{\prime}$ Rt. 82
$10.365 \mp 00$ - Park $\Lambda$ rea $150^{\prime}$ Rt.
(Ambient 72' Rt.)
11.372+(1) - Lumber Co. $40^{\circ} \mathrm{Lt}$.
12.375 ${ }^{+80}$ - Hungry Horsc News $82^{\prime}$ Rt.
(Anbient $38^{\prime}$ Rt.)
13.382 +50 - Cabinet Shop 73' Rt. 76
(Ambient $45^{\prime} R t$. )
14.397+00 llouse $80^{\prime} \mathrm{Lt}$.
(Ambient 68' Lt.)
$15.404+50$ llouse 87'Rt. 74
(Ambient 45' Rt.)
$16.441+20$ - House 122'Rt. 72
67.4
69.4
62.8
64.8
67.9
69.5
67.3
63.2
68.8
66.9
63.0
66.8
68.8
(Anbient $67^{\prime}$ Lt.)
68.7

As can be casily noted, the predicted noise levels are much higher than the ambient readings and most of them are also above the allowable levels. Die to these large differences in values, a brief analysis was made to compare the ambient readings with the calculated present noise level. The results of this analysis are as follows:

Calculated Ambient

| $313 \pm 50$ | 71 | 67.2 |
| :--- | :--- | :--- |
| $347 \mp 25$ | 75 | 67.9 |
| $360 \mp 00$ | 78 | 67.3 |
| $372 \mp 00$ | 76 | 68.8 |

The calculated levels are much higher than the actual ambient readings and it aprears that the major difference is being caused by the noise being contributed hy the trucks.

## Page 3

If these differences were applied to the previously calculated future noise levels; it would lower them by 5 to 10 dBA which would bring most of them into the range of allowable values, although there still could be a few that exceed the allowable.

Therefore, the possibility of providing some type of noise barrier was considered, however, they do not appear to be very feasible. For one thing, there are numerous street intersections along the project which would require gaps in the barriors and make them very ineffective. These gaps would also create safety hazards and causc a reduction in sight distance at the intersections. Also, the barriers would physically separate the adjacent businesses from the roadway and consequent loss of business would occur. In order to erect the barriers, a considerable amount of new, expensive right-of-way would be required, and in a few instances, would require relocation of the building that we were trying to protect. The aesthetic quality of any barriers that would provide the proper protection would be displeasing as they would have to be quite high, probably at least $15^{\prime}$ to reduce truck noise, which is causing most of the problems, and would eliminate much of the view of the surrounding mountains

Remodeling of some of the building exteriors was considered, however, due to the large number that would be involved and the age and type of buildings, it does not appear to be practical, both from an economical and a structural standpoint.

In sumnary, it appears that the benefits derived from noise abatement measures would be minimal in conparison to the costs and associated problems. Therefore, we request your concurrence that this exception to the design noise levels is in the best public interest.

Very truly yours,
H. J. ANDERSON

DIRECTOR OF HIGHWAYS

32-SCK:KFS: (LLL:mg Attachment

Cc: J. R. Beckert
LK. I: Skoog
J. J. Keithley
A. G. Zbitnoff

Concur
Date $\qquad$
$\qquad$
 $-$


U.S. DEPARTMENT OF TRANSPORTATION
federal highway administrátion
region eight
Montana Division
501 North Fee Street Helena, Montana 59601

April 20, 1976


Mr. H. J. Anderson
Director of Highways
Montana Department of Highways
Helena, Montana
32:SCK

## Gentlemen:

Subject - Noise Exception Request
We approve of your requested exception to the design noise levels for F 100(9), Columbia Falls - E \& W.

Sincerely yours,


## EROSION, WATER POLLUTION \& SILTATION CONTROL

The Contractor shall exercise every reasonable precaution throughout the life of the project to prevent pollution and siltation of rivers, streams or impoundments. Pollutants such as chemicals, fuels, lubricants, bitumens, raw sewage and other harmful wastes shall not be discharged into or alongside of rivers, streams, impoundments or into natural or manmade channels leading thereto. In addition, the Contractor shall conduct and schedule his operations to avoid muddying or silting of rivers, streams or impoundments. The Contractor shall meet the requirements of the applicable regulations of the Department of Fish \& Game, Department of Health and Environmental Sciences and other State or Federal regulations relating to the prevention or abatement of water pollution and siltation. The Contractor's specific attention is directed to the Montana Water Pollution Control Act and the Montana Stream Preservation Act.

The Contractor shall dispose of all refuse and discarded materials in an approved location.

Water pollution and siltation control work shall consist of temporary erosion control measures which may be shown on the plans, specified in the Special Provisions, proposed by the Contractor and approved by the Engineer, or ordered by the Engineer during the life of the contract. Said work is intended to provide prevention, control and abatement of water pollution and siltation within the limits of the project and to minimize damage to the work and to adjacent property and streams or other bodies of water.

The Contractor shall coordinate temporary pollution and siltation control work with permanent drainage and erosion control work and all other work on the contract, including permanent seeding that may be specified in the contract or ordered by the Engineer to the extent practicable to assure that effective and continuous erosion control is maintained during the construction of the project.

The Contractor shall provide temporary pollution and siltation control measures, including but not limited to the following:

Construct ditches, berms, culverts, etc. to control surface water.
Construction dams, settling basins, energy dissipators, etc. to control downstream flows.

Provide means of controlling underground water which may be encountered during construction.

Protect slopes by covering or by other means until permanent erosion control measures are effective.

Before starting any work on the project, the Contractor shall submit to the Engineer for acceptance a program for effective control of water pollution and siltaition. Such program shall show the schedule for the erosion control work included in the contract and for all temporary water pollution and siltation control measures which the Contractor proposes to take in connection with construction of the project to minimize the effects of his operations upon adjacent streams and other bodies of water. The Contractor shall not perform any clearing and grubbing or earthwork on the project, other than that specifically authorized in writing by the Engineer, until such program has been accepted. The Contractor shall revise and bring up to date said water pollution control program at any time the Engineer makes written request for revision.

Where erosion is likely to be a problem, clearing and grubbing operations should be so scheduled and performed that grading operations and permanent erosion control features can follow immediately thereafter if the project conditions permit; otherwise temporary erosion control measures may be required between successive construction stages. Under no conditions shall the surface area of erodible earth material exposed at one time by clearing and grubbing exceed 750,000 square feet without written approval by the Engineer.

The Engineer will limit the area of excavation, borrow and embankment operations in progress commensurate with the Contractor's capability and progress in keeping the finish grading, topsoiling, permanent seeding and other permanent pollution and siltation control measures current in accordance with the Contractor's approved water pollution control plan.

Slopes and areas finished in the winter and spring shall be permanently seeded before the end of the spring seeding period. Slopes and areas finished during the summer and early fall shall be permanently seeded during the fall seeding period unless otherwise specified.

The permanent seeding dates shall be as specified in the Seeding Special provisions attached to the contract.

Permanent seeding of the finished slopes during the specified spring and fallseeding periods will require frequent seeding operations and shall not be construed to mean that the required finishing, topsoiling, fertilizing, mulching, permanent erosion control placement and seeding can be done at the convenience of the Contractor. Any additional move-in required will not be paid for separately as the cost thereof shall be absorbed in the unit price bid for the various seeding, fertilizing, mulching and mobilization items.

Should seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified.

Under no conditions shall the amount of surface area or erodible earth material exposed at one time by excavation; borrow or fill within the right-of-way exceed 750,000 square feet without written approval of the Engineer.

The Engineer may increase or decrease the amount of surface area of erodible earth material to be exposed at one time by clearing and grubbing, excavation, borrow and fill operations as determined by his analysis of project conditions.

The limitation on the two operations is to be considered separate. The maximum area that can be underway at one time is 750,000 square feet of clearing and grubbing and 750,000 a square feet of grading, unless modified in the bidding proposal or by the Engineer.

The Engineer may modify the 750,000 square feet limitation when project conditions such as soil characteristics and/or Contractor operations indicate that a smaller or larger area is reasonable. On a long or complex project, the Contractor may have several separate grading spreads or subcontractors in operation in which case it may be reasonable in some instances to apply the limit to each individual operation assuming finishing, mulching, seeding, etc. is closely following the rough grading operations in each instance. In these cases the specified pollution control procedures shall be applied to each individual operation.

Where erosion damage is probable due to the nature of the material or the season of the year, the Contractor's operations shall be so scheduled that permanent erosion control features will be installed concurrently with or immediately following grading operations.

In the event that a suspension of work is ordered for an extended period of time, in accordance with Article 08.03 of the Standard Specifications, the Contractor shall take all action necessary to control erosion, siltation, pollution and run-off during the shutdown period before the State will assume responsibility for maintenance. The State's responsibility will be as set forth in Article 04.04 (C) (3) of the Standard Specification.

When the temporary control facilities are no longer needed, they shall be removed and the areas finished as directed by the Engineer.

Temporary water pollution control measures will be measured by the respective unit for material and work performed in accordance with the Contractor's approved plan or as directed by the Engineer or both.

Payment for temporary water pollution and siltation control, measured as provided above, will be at agreed prices or on a force account basis or both. The number of units in dollars set down in the contract is an estimated amount only, which may be adjusted up or down by the Engineer in accordance with the needs of the project.

If temporary water pollution and siltation control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of a practical work schedule, and are ordered by the Engineer, such work shall be performed by the Contractor at no cost to the State.

In case of repeated failures on the part of the Contractor to control erosion, pollution and/or siltation, the Engineer reserves the right to employ outside assistance or to use his own forces to provide the necessary corrective measures. Such incurred direct costs will be charged to the Contractor and appropriate deductions made from the Contractor's monthly progress estimate.

Maintenance of temporary pollution, siltation or erosion controls or removal of such installed controls if directed, will be paid for on a force account basis.

Erosion control items which are a part of the contract shall be considered as permanent control measures and payment will be made at the unit contract prices involved.

Should seeding during the times specified fail to establish an acceptable stand of grass, the areas where failure has occurred shall be reconditioned, remulched, refertilized and reseeded in accordance with Section 17, of the 1970 Edition of the Standard Specifications.

Payment for required seedbed remulching, refertilizing, reconditioning and reseeding will be at the unit prices bid for the various items of work.

## JRK BRIDGE - Continued

ations which are not part of the finished work without operating mechanized equipment the flowing river.

All costs associated with this provision shall be included in the Lump Sum price bid for Shoring and Cribs.
6. COFFERDAMS AND DEWATERING EXCAVATIONS

Excavation for Piers No. 2, No. 3 and No. 4 shall be restricted to the area within suitable and practically watertight wall type cofferdams. The contractor shall submit draw--ings to the engineer showing his proposed methods of cofferdam construction and other pertinent features. Construction of the cofferdams in place shall not begin until the engincer approves the contractor's methods and details, but such approval shall not relieve the con--tractor of any of his responsibilities under the contract to secure safe and satisfactory cofferdams.

It will be permissible for the contractor to pump water directly into the river while dewatering the area excavated for the footings; however, while performing this operation, the contractor will be required to meet State Department of Health and Environmental Sciences -criteria, i.e. a maximum of ten Jackson Turbidity Units will be allowed 300 yards downstream from the construction site in addition to that turbidity which exists immediately upstream - :om the construction site at the time of deposit and/or discharge. If the contractor is found to be in non-ccapliance with the turbidity limits as stated above, he will be required to suspend all or in part those construction operations contributing to the sediment pol~ -lution until he has revised his method of operations.

These items will not be included for direct payment but will be included in the Lump Sum price bid for Shoring and Cribs.

The methods used for turbidity determination should be in conformance with Section 163 A of the 13th Edition of Standard Methods for the Examination of Water and Wastewater $\rightarrow r$ the Environmental Protection Agency's Methods for Chemical Analysis of Waler and Wastes.
7. ROD SOUNDINGS

The structure excavation for the spread footings on this project shall be performed in such a manner that the rod soundings for all of the spread footings of each -individual substructure unit shall be submitted simultaneously for approval of footing elevations.

No extra compensation will be considered or allowed by reason of the conditions -) this provision as it shall be considered necessary and incidental to the completion of w the work.
*8. POLLUTION AND SILTATION REGUIATIONS
The contractor shall familiarize himself with all applicable Federal, State and local regulations concerning water pollution and siltation control before submitting a bid. -All construction must be in conformance with the laws and regulations.

Construction of the pier cofferdams in place shall not begin until the contractor -has obtained a permit from the Montana Department of Health and Environmental Sciences for Authorization to Discharge Under The Montana Pollutant Discharge Elimination System in compliance with Section 69-4801, et. seq., R.C.M. 1947, MAC 16-2.14 (10) - S 14460 and - MAC 16-2.14 (10) - S 14480.

No extra compensation will be considered or allowed by reason of the conditions -of this provision as it shall be considered necessary and incidental to the completion of the work.

## 9. WELDING

All welding shall meet the requirements of the American Welding Society Specifi-- -ations for Welded lifghway and Railway Bridges, AWS D2.0-69 as amended ay AASHTO and Montana Supplemental Specifications.

# Copy for Bill kapptie 

MONTANA DEPARTMENT OF HEALTH<br>AND<br>ENVIRONMENTAL SCIENCES

## AUTHORIZATION TO DISCHARGE UNDER THE

## MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Section 69-4801, et. seq., R.C.M. 1947, MAC 16-2.14(10)-S14460 and MAC 16-2.14(10)-S14480,

COP Construction Company
617 Central Avenue
Billings, Montana 59103,
is authorized to discharge collected seepage water resulting from cofferdam dewatering for pier construction on a U. S. Highway No. 40 bridge crossing located at $\mathrm{NW}^{\frac{7}{4}}$, Section 16, T. 30 N., R. 20 W.,
to receiving waters named the Flathead River,
in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof.

This permit shall become effective on the date of issuance.
This permit and the authorization to discharge shall expire at midnight, August 31, 1976.

FOR THE MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES


Dated this 23rd day of June, 1975.


## MONITORING AND REPORTING REQUIRDMENTS

1. Representative Sompling

Samples and measurements taken as required herejn shall be representative of the volume and nature of the monitored discharge.

Reporting
Monitoring results obtained during the previous 1 month shall be sumnarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on July 28, 1975.
Duplicate signed copies of these, and all other reports herein, shall be submitted to the Department and the Regional Administrator at the following addresses:
(a) Montana Department of Health and Environmental Sciences Water Quality Bureau Board of. Health Building Helena, Montana 59601
(b) Regional Administrator U. S. Environmental Protection

## Agency

Suite 900, 1860 Lincoln Street Denver, Colorado 80203

## Attention: Permits Branch

Note: If no disčharge occurs during the reporting period, "no discharge" shall be reported, in letter form, to the above agencies.
3. Definitions
(a) The 'Act" means the Federal Water Pollution Control Act Amendments of 1972, PL 92-500.
(b) The "Administrator" means the administrator of the United States Environmental Protection Agency.
(c) A "composite" sample, for monitoring requirements, is defined as a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow.
(d) For compliance purposes, the "daily average" discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.
(e) For compliance purposes, the "daily maximum" discharge means the total discharge by weight during any calendar day. This limitation shall be determined by the analyses of a properly preserved composite sample composed of a minimum of grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow at the time of sampling.
EXHIBIT NO. 16

Test procedures for the analysis of pollutants shall conform to regulations published in or subsequent revisions to the Federal Register, October 16, 1973, Vol. 38, Number 199, Part II. Sample collection and preservation shall be in accordance with the best methods technologically feasible, and shall be in a manner acceptable to the Department. (The EPA Region VIII Treatment and Preservation Guide should be consulted for acceptable sample collection and preservation techniques.)

All flow measuring and flow-recording devices used in obtaining data submitted in self-monitoring reports must indicate values within 10 percent of the actual flow being measured.

## 5. Recording of Results

For each measurement or sample taken pursuant to the requirenents of this permit, the permittee shall record the following information:
(a) The exact place, date, and time of sampling;
(b) The dates the analyses were performed;
(c) The person(s) who performed the analyses;
(d) The analytical techniques or methods used; and
(e) The results of all required analyses.
6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (EPA No. 3320-1). Such increased frequency shall also be indicated.
7. Records Retention

All records and information resulting from the monitoring activities requiredby this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Department or the Regional Administrator.

Page 5 of 8
Permit No.: M「-0023736

## A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new MPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Department of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.
2. Noncompliance Notification - This is it we have problems of exceed the limits of the permit
If, for any reason, the permittee does not comply with or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide the Department and the Regional Administrator with the following information, in writing, within five (5) days of becoming aware of such condition:
(a) A description of the discharge and cause of noncompliance; and
(b) The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.
3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.
4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to state waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
5. Bypassing

Any diversion from or bypass of treatment or control facilities or systems necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Department and the Regional Administrator in writing of each such diversion or bypass.

If, for other reasons, a partial or complete bypass of the wastewater treatment facilities is considered necessary, a request for such bypass shall be submitted to the Department and to the Regional Administrator at least sixty (60) days prior to the proposed bypass. If the proposed bypass is judged accoptable by the Department and by the Regional Administrator, the bypass will be allowed subject to limitations imposed by the Department and the Regional Administrator.

If, after review and consideration, the proposed bypass is determined to be unacceptable by the Department and the Regional Administrator, or if limitations imposed on an approved bypass are violated, such bypass shall be considered a violation of this permit; and the fact that application was made, or that a partial bypass was approved, shall not be defense to any action brought thereunder.
6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering state waters.

## 7. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:
(a) In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;
or, if such alternative power source is not in existence, and no date for its implementation appears in Part I,
(b) Halt, reduce or otherwise control production and/or all discharges upon the reduction, loss of failure of the primary source of power to the wastewater control facilities.

## B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the head of the Department, the Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:
(a) To enter upon the permittee's premises where an effluent source is located or in which any records are kept; and
(b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.
2. Transfer of Ounership or Control

In the event of any change in control or ownership from which the authorized discharges cmanate, the permittce shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be fonvarded to the Department and the Regional Administrator.
3. Availability of Reports

Except for data determined to be confidential under Section 308 of the $1 c t$, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Departnent and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 69-4823 (6), R.C.M. 1947.
4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for carase including, but not limited to, the following:
(a) Violation of any terms or conditions of this permit;
(b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
(c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
5. Toxic Pollutants

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307 (a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.
6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" (Part II, A-5) and "Power Failures" (Part II, A-7), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.
7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.
8. Propertiy Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
9. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART III MI

OTHER REQUIREMENTS
Requirement to Construct Waste Control Facilities
Prior to beginning discharge(s), the permittee shall construct and place into operation any waste control facilities necessary to achieve compliance with the effluent limitations contained in Part I of this permit.

# Department of Heath and Efiviormental Sciences 

state of Montana helena, montana 5801

December 8, 1975

A. C. Knight. RA. U., F. C. C. P.

ACIItic blf!Cl゙ん

Mr. Stephen C. Kologi, P.E., Chief
Preconstruction Bureau
Department of Highways
Highway Building
Helena, Montana 59601
Dear Mr. Kologi:
Reports listed below have been reviewed for potential impact on water quality. We have no comments or suggestions at this time.
(.) RS 6(10)

Canyon Ferry Dam S.E.
(Field Review)
Dated: October 21, 1974
(2) Location and Design Report (draft)

Project RF 266 (14)
Scobey - South
Montana 13
Dated: August, 1975
(3) Location and Design Report

Project RS 31(7)
Circle-Northwest
Secondary Route 252
McCone County
Dated: July, 1975
(4) $\mathrm{RF}-236(8)$

Dupuyer - N.\&S.
Dated: October 22, 1975
(5) Location-Design Study Report (draft) BRF-224(14)
lIst Avenue North Bridge Great Falls
 Dated: November, 1975
(6) Location and Design Study Report Project RS 239(5) 21.4 miles north of Nashua-North

Secondary Route 433
Valley County
Dated: July, 1975

December 8, 1975
(7) Design Study Report (draft) F-100(9)
Columbia Falls - East and West Dated: September, 1975

Sincerely yours,
D. Y. Wien
D. G. Willems, P.E., Chief Water Quality Bureau Environmental Sciences Division

DGW: RDB:vlf

## IDETPATRTMIIENTR CDR


Helena, Montana 59501
August 4, 1975

Mr. H. J. Anderson, Director Department of Highways
Helena, Montana 59601
Attention S. C. Kologi
Dear Mir. Anderson:
This correspondence is in response to yours of July 22, 1975 concerning project F 100 (9), Columbia Falls - East and West. Your proposed channel alteration and placement of the SSPP arch culvert at station 127+12 is satisfactory to our department. We would like to request that all necessary work on the culvert and channel change be completed prior to diverting flow into the new channel. If any groundwater or seepage flow in the new channel causes turbidity in Trumbull Creek below the construction area during construction, provisions for retention of this flow to remove sediment should be provided.

Sincerely,


Ralph W. Boland, Assistant Administrator Environment and Information Division

RWB:ale
cc: Bob Schumacher Harold Stewart


## CONTRIBUTORS

XII. Joe Armstrong holds a B.S. degree from the University of Montana in Geology. $\overline{M r}$. Armstrong is a registered Professional Creologist. Prior to joining the Department in 1960, he spent two years in the private sector.

Daniel Bartsch holds a B.S. degree in business administration from the University of Montana. Mr. Bartsch spent five years in the private business sector before joining the Department of Highways in 1967, and was serving as Socio-Economic Coordinator for the Department when he made his contribution.

Michael J. DaSilva holds a B.A. and Masters degree in biology from Eastern Washington State College. Mr. DaSilva has been with the Department of Highways since January 1975.

Robert E. Hall holds a B.A. degree in biology from Wabash Collage and a $\overline{\text { Masters degree }}$ in environmental studies from the University of Montana. Prior to joining the Department in 1974, Mr. Hall was an instructor with Montana State University and presently serves as Manager, Environmental and Landscaping Unit.

Richard A. Howell holds a B.S. degree from Michigan State University in urban planning and is a member of the Montana Association of Planners. Prior to joining the Department in 1973, Mr. Howell worked five years as a consultant in urban and regional planning.

David S. Johnson holds a B.S. degree in geologic engineering from the Montana School of Mines. Mr. Johnson joined the Department in 1959, is a registered Professional Engineer, and has done graduate work in environmental engineering. Mr. Johnson presently serves as Manager, Engineering Specialties Section.

Stephen C. Kologi holds a B.S. degree in civil engineering from Montana State University and is a registered Professional Engineer. Mr. Kologi joined the Department in 1958 and presently serves as Chief, Preconstruction Bureau.

Gordon L. Larson holds a B.S. degree in civil engineering from Montana State University and is a registered Professional Engineer. Mr. Larson joined the Department in 1964 and presently serves as an Area Engineer in the Location and Road Design Section.

Carl S. Peil holds a B.S. degree in civil engineering from Montana State University. Mr. Peil is a registered Professional Engineer and has been with the Department since 1966. He presently serves as Manager of the Hydraulics Unit.

Kenneth F. Skoog holds a B.S. degree in civil engineering from Montana State Unīersity. Mr. Skoog is a registered Professional Engineer and was employed by the Department of Highways in 1964. He presently serves as Supervisor, Location and Road Design Section.




[^0]:    * Does not include existing Montana No. 40 right-of-way.

